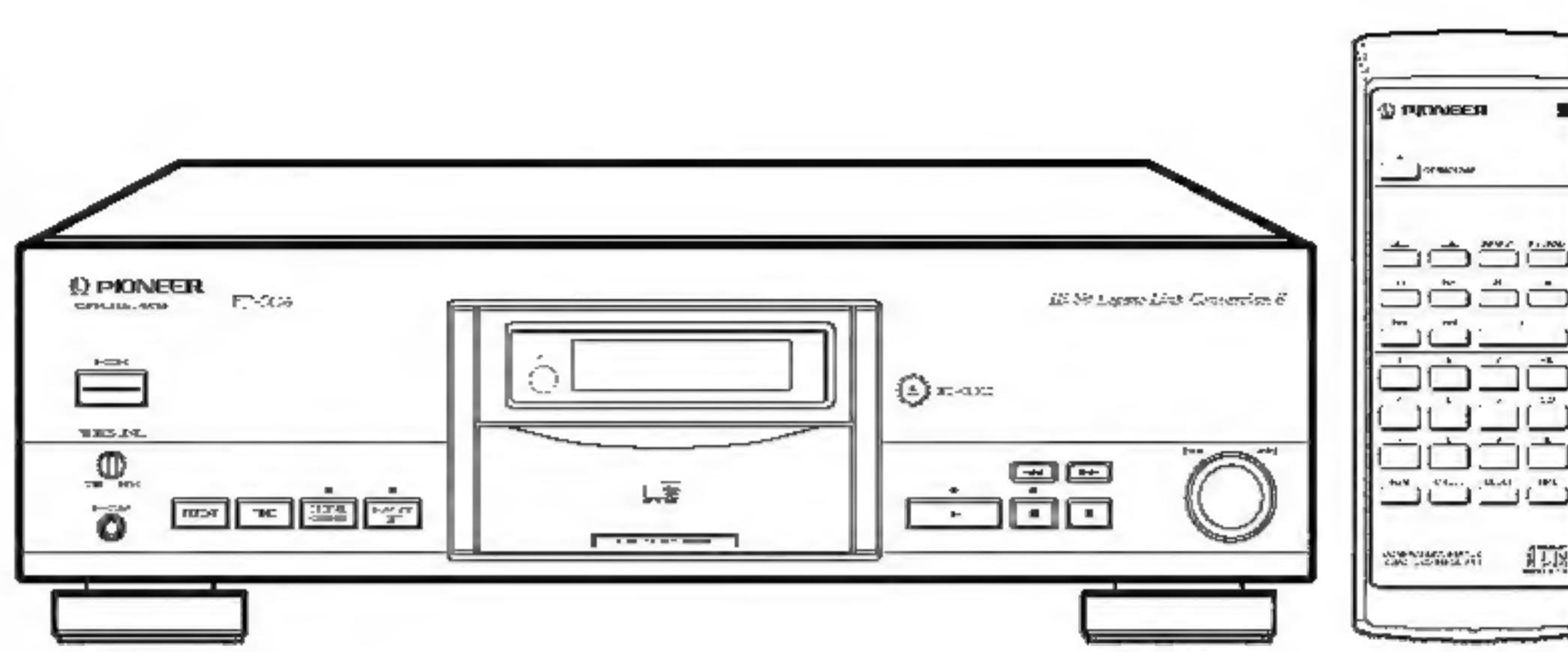




Service Manual



ORDER NO.
RRV1837

COMPACT DISC PLAYER **PD-S06**

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	PD-S06		
MY	○	AC220–230V	—

CONTENTS

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PIONEER ELECTRONIC CORPORATION

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PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

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T-KZR AUG. 1997 Printed in Belgium

1. SAFETY INFORMATION

VARO!
AVATTAESSA JA SUOJALUKITUS
OHITETTAESSA OLET ALTIINA
NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLÉ.
ÄLÄ KATSO SÄTEESEEN.

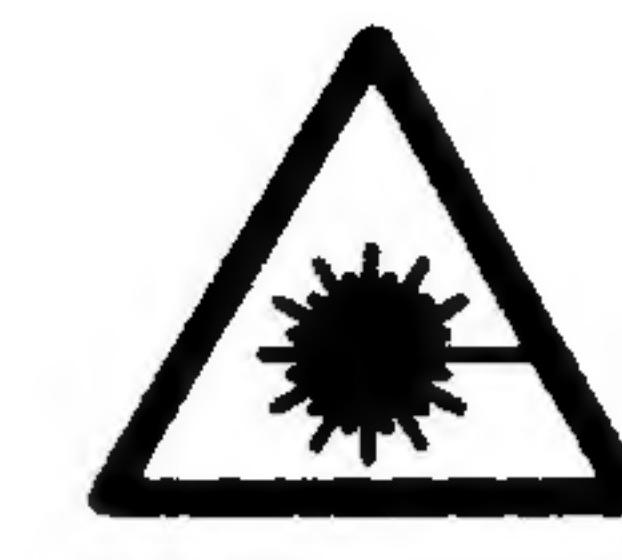
ADVARSEL:
USYNLIG LASERSTRÅLING VED ÅBNING
NÅR SIKKERHED SAFBRYDERE ER UDE AF
FUNKTION. UNDGÅ UDSÆTTELSE FOR
STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA
DEL ÄR ÖPPNAD OCH SPÄRREN
ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.



LASER
Kuva 1
Lasersäteilyn
varoitusmerkki

WARNING!
DEVICE INCLUDES LASER DIODE WHICH
EMITS INVISIBLE INFRARED RADIATION
WHICH IS DANGEROUS TO EYES. THERE IS
A WARNING SIGN ACCORDING TO PICTURE
1 INSIDE THE DEVICE CLOSE TO THE LASER
DIODE.

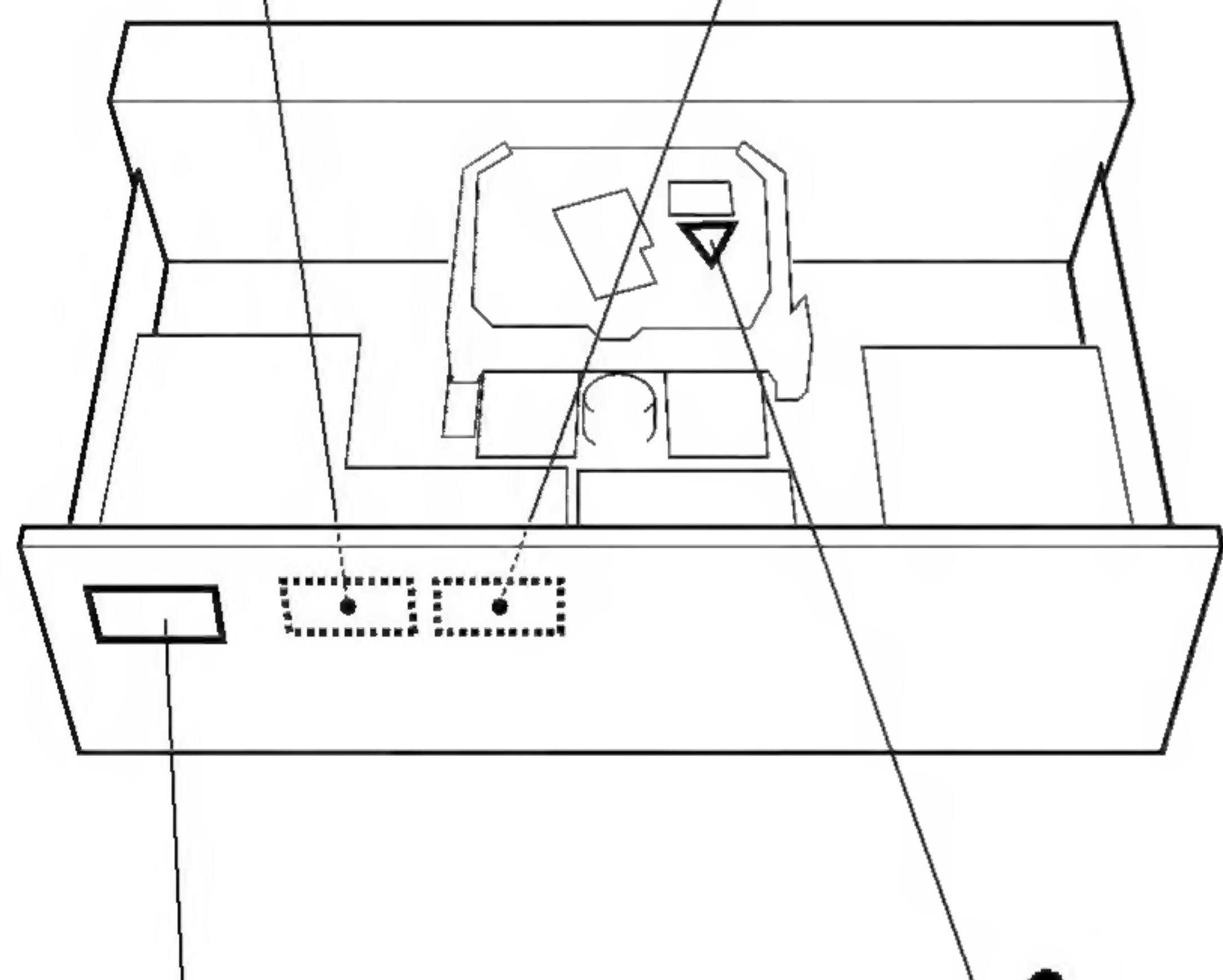
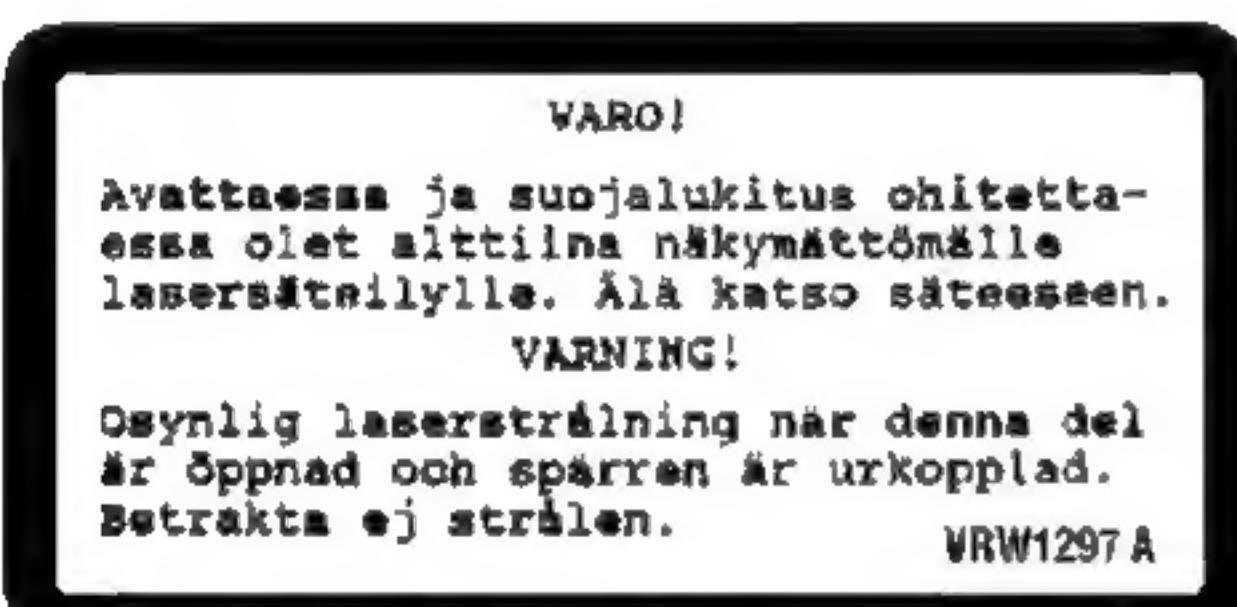
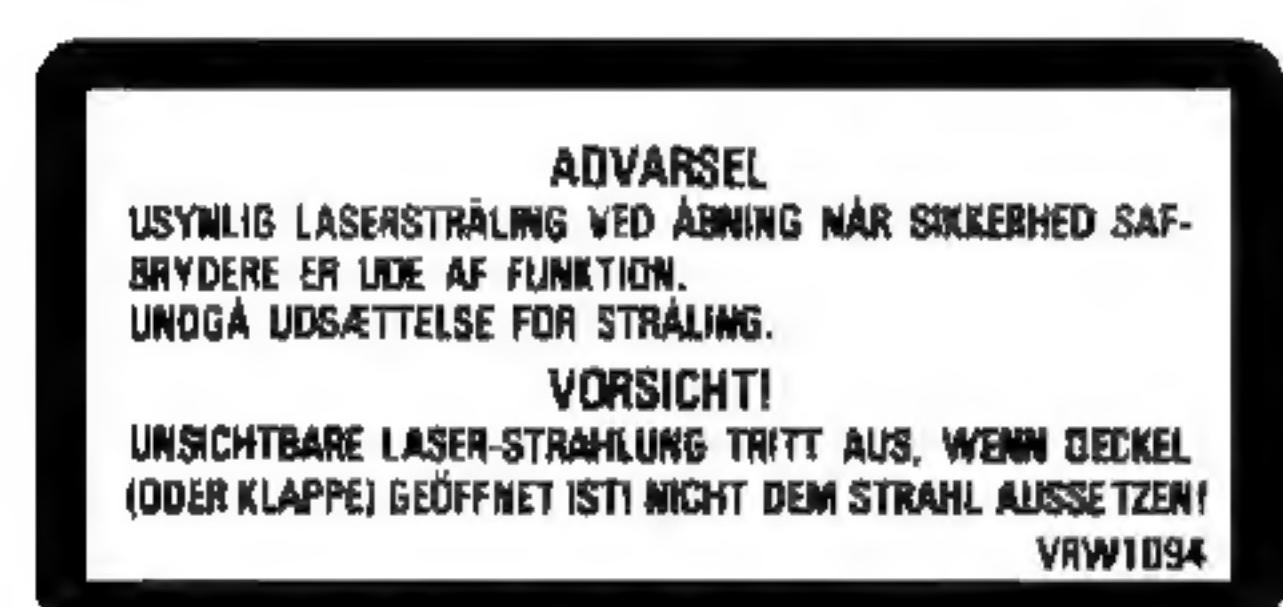


LASER
Picture 1
Warning sign for
laser radiation

IMPORTANT
THIS PIONEER APPARATUS CONTAINS
LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS
SHOULD BE DONE BY A SPECIALLY
INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780 – 785 nm

LABEL CHECK



Additional Laser Caution

1. Laser Interlock Mechanism

The position of the switch (S601) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S601) is not on CLMP terminal side (CLMP signal is OFF or high level.). Thus, the interlock will no longer function if the switch (S601) is deliberately set to CLMP terminal side (low level).

The interlock also does not function in the test mode*. Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

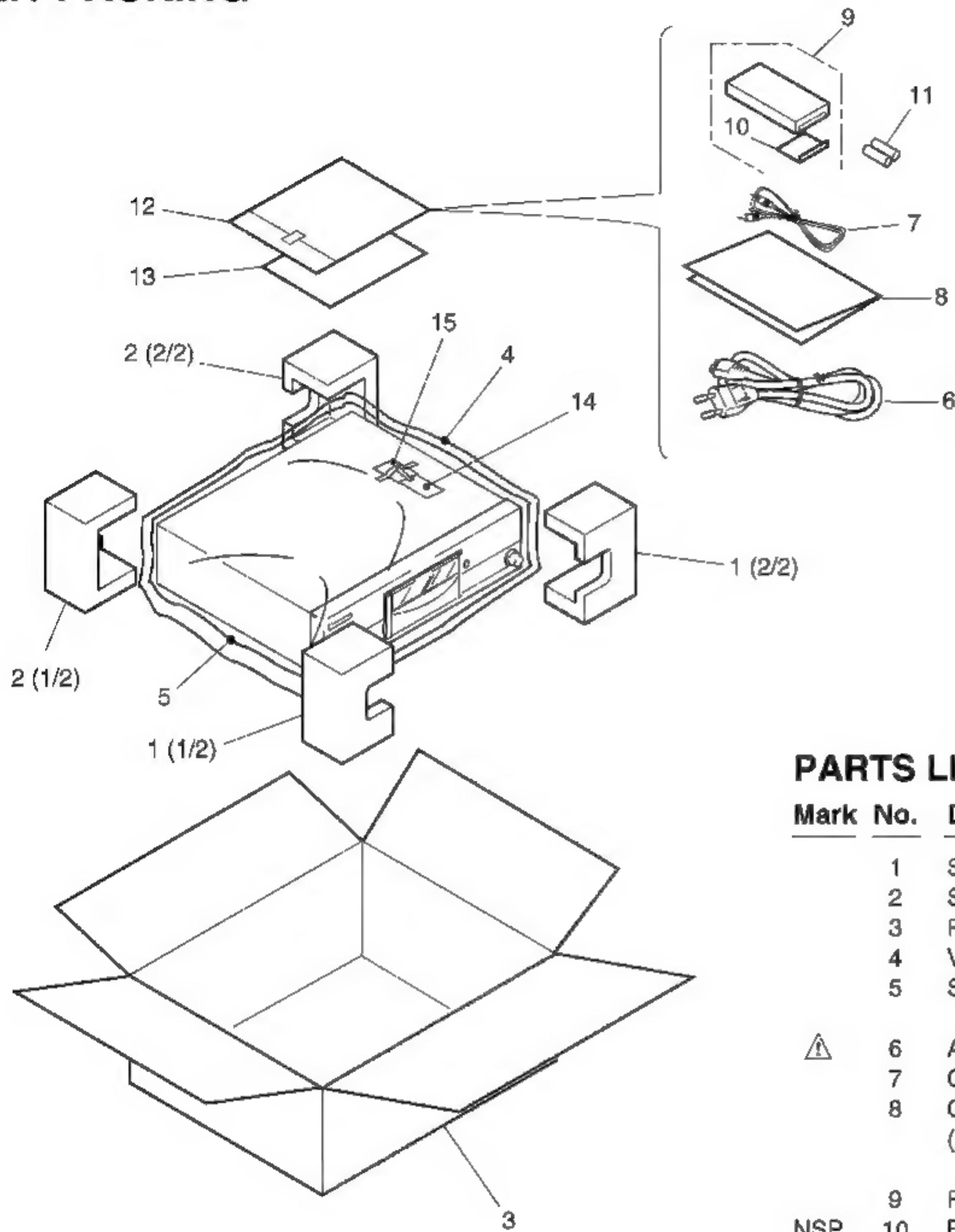
2. When the cover is opened with the servo mechanism block removed and turned over, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* Refer to page 38.

2. EXPLODED VIEWS AND PARTS LIST

- NOTES :**
- Parts marked by " NSP " are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screw adjacent to  mark on the product are used for disassembly.


2.1 PACKING



PARTS LIST

Mark	No.	Description	Parts No.
	1	Styrol Protector F	PHA1319
	2	Styrol Protector R	PHA1320
	3	Packing Case S06	PHG2272
	4	Vinyl Bag	PHL1087
	5	Seat (750 × 600 × 0.5)	Z23-007
	6	AC Power Cord	ADG1127
	7	Output Cable (L=1.2 m)	PDE1003
	8	Operating Instructions (English/ French/ German/ Italian/ Dutch/ Swedish/ Spanish/ Portuguese)	PRE1263
	9	Remote Control Unit	PWW1115
NSP	10	Batty Cover	PZN1103
NSP	11	Dry Cell Battery (R03, AAA)	VEM-022
NSP	12	Polyethylene Bag (0.03 × 230 × 340)	Z21-038
NSP	13	Warranty Card	ARY7008
NSP	14	Caution SG	ARR7013
NSP	15	Silica Gel	AEN7001


2.2 EXTERIOR (1/2)



PARTS LIST

Mark	No.	Description	Parts No.
▲ NSP	1	Main Board Assy	PWZ3500
	2	Servo Power Board Assy	PWZ3509
	3	Analog Power Board Assy	PWZ3516
	4	Ferrite Core	PTH1018
	5	Power Transformer	PTT1242
▲ NSP	6	Power Transformer (AUDIO)	PTT1336
	7	Under Base	PNA2373
	8	Rear Base S06	PNA2374
	9	Bottom Plate	PNA2376
NSP	10	Side Angle	PNB1583
NSP	11	Insulator	PNW2766
	12	Loading Mechanism Assy TT	PXA1598
	13	Power Knob G	PAC1852
	14	Caution Label (G)	VRW-329
	15	Caution Label	VRW1094
NSP	16	Caution Label HE	VRW1297
	17	Screw (3x6)	ABA1207
	18	Screw	ABA1011
	19	Screw	BBZ30P080FCC
	20	Screw	BBT30P080FCC
NSP	21	Screw	IBZ30P080FCC
	22	Screw	IBZ30P120FCC
	23	Blinder	Z09-056
	24	Cord Stopper	DNF1128
	25	Tape	PNM1249
NSP	26	Cord Clamper	RNH-184
	27	Cushion 55	PNM1316


2.3 EXTERIOR (2/2)



PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Display Board Assy	PWZ3526		31	Screw	FBT40P080FNI
NSP	2	Function Board Assy	PWZ3532		32	Screw	BBZ40P080FNI
NSP	3	Phone Board Assy	PWZ3538		33	Screw	PPZ30P080FMC
	4	H.P. Angle	PNB1582		34	Screw	BBZ30P080FCC
	5	Mode Button S06	PAC1848		35	Screw	BMZ30P050FMC
	6	Play Button G	PAC1850		36	
	7	Manual Button G	PAC1854		37	Tray Cushion	PNM1313
	8	Track Knob S06	PAC1855		38	Earth Plate T	PBK1149
	9	Headphone Knob G	PAC1862		39	Earth Plate S	PBK1150
	10	Display Window G	PAM1736		40	Screw	IBZ30P060FMC
	11	FL Sheet White	PAM1737		41	Connector Assy 5P	PDE1291
	12	Front Panel S06	PAN1357		42	
	13	Side Sash G	PAN1362		43	Panel Assy S06	PEA1345
	14	LED Lens	PNW2745		44	Spacer 4t	PEB1299
	15	Panel CDG	PNW2750		45	Cord Stopper	RNH-184
	16	Panel LG	PNW2751				
	17	Panel RG	PNW2752				
	18	Name Plate	VAM1051				
	19	Screw	PBA1096				
	20	Washer	PBE1010				
	21	Damping Spring	PBH1223				
	22	Tray Holder	PNW2753				
NSP	23	Tray Panel Holder	PNW2754				
	24	Tray Panel Assy S06	PXA1602				
NSP	25	Tray Panel G	PAN1355				
	26	Tray Badge S06	PAN1358				
	27	Bonnet Case	PYY1226				
	28	Calor	RAT1002				
	29	Nut	NK90FCU				
	30	Spacer	PEC1034				

2.4 LOADING MECHANISM ASSY TT



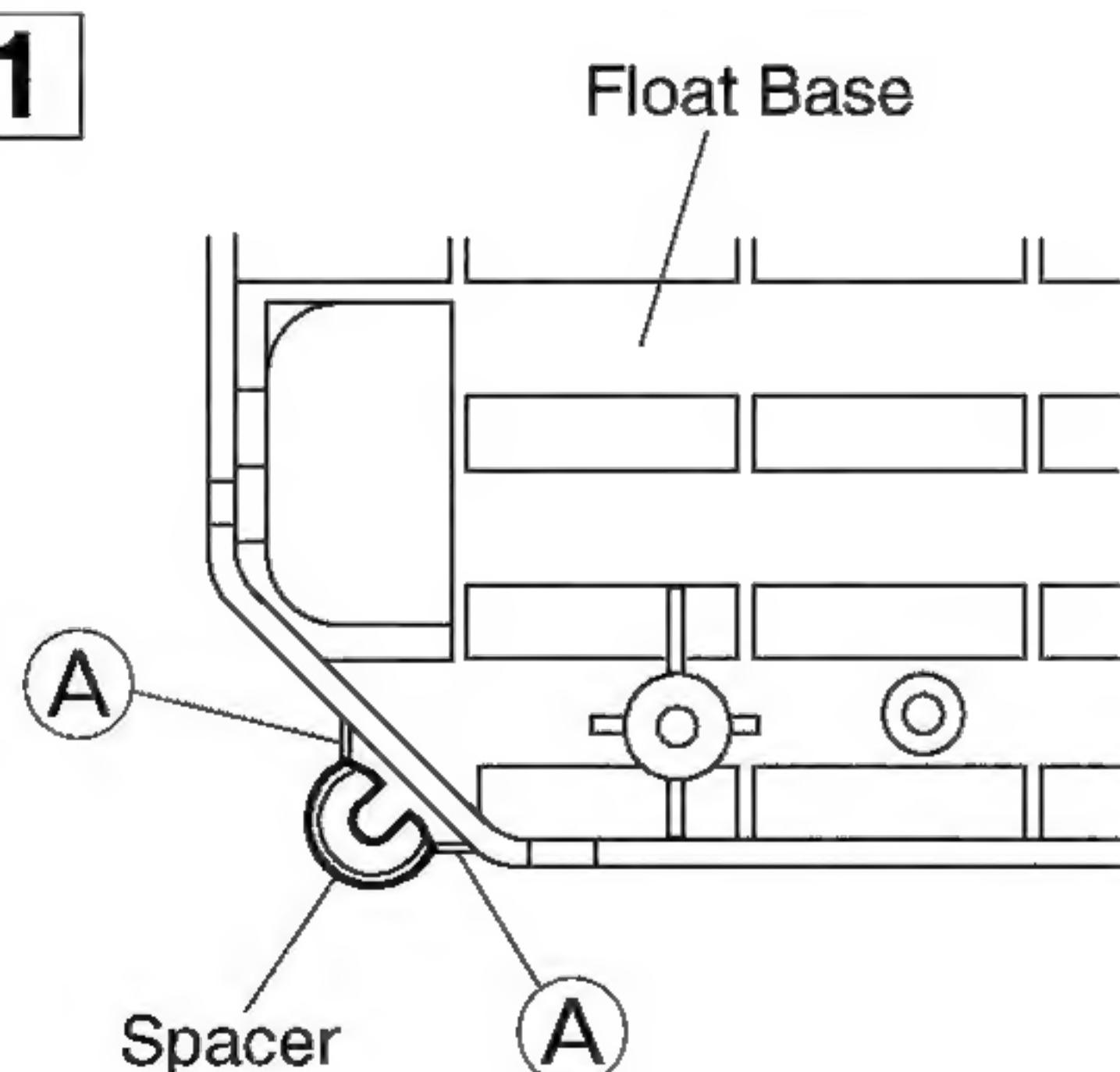
PARTS LIST

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.	
1	Lever Switch (S601)	DSK1003	NSP	26	Turn Table G (AL)	PAN1363
2	Float Screw	PBA1027	NSP	27	Servo Mechanism Assy TT	PXA1600
3	Rubber Belt	PEB1186		28	E Ring	Z39-017
4	Motor Pulley	PNW1634		29	Shaft Holder	PNB1382
5	Drive Gear	PNW1996		30	Screw	BPZ26P060FMC
6	Synchronized Lever	PNW2168	NSP	31	Screw	BBZ26P060FMC
7	Gear Pulley	PNW1998	NSP	32	Earth Lead	PDF1148
8	SW Head	PNW1999		33	Caution Label	PRW1244
9	Float Base	PNW2767		34	Connector Assy 5P	PDE1243
10	Left Cam	PNW2001		35	Connector Assy 6P	PDE1287
11	Right Cam	PNW2002	NSP	36	Binder	PEC-107
12	Float Spring	PBH1222	NSP	37	Tray Assy TT	PXA1599
13	Lock Spring	PBH1121		38	Clamp Spring	PBK1148
14	Float Rubber	PEB1014		39	Spacer	PBF1014
15	Table Rubber Sheet	PEB1181	NSP	40	Table Base	PXA1382
16	Tray	PNW2762		41	Screw	IBZ30P060FCC
17	Table Guide	PNW2004				
18	Lock Plate	PNW2005				
19	D.C. Motor (0.75W, LOADING)	PXM1010				
20	Screw	BMZ26P040FMC				
21	Screw	IPZ26P060FCU				
22	Screw	IPZ20P080FMC				
23	Turn Table Assy	PEA1342				
24	Loading Base	PNW2761				
25	Table Shaft Holder Assy	PXA1383				

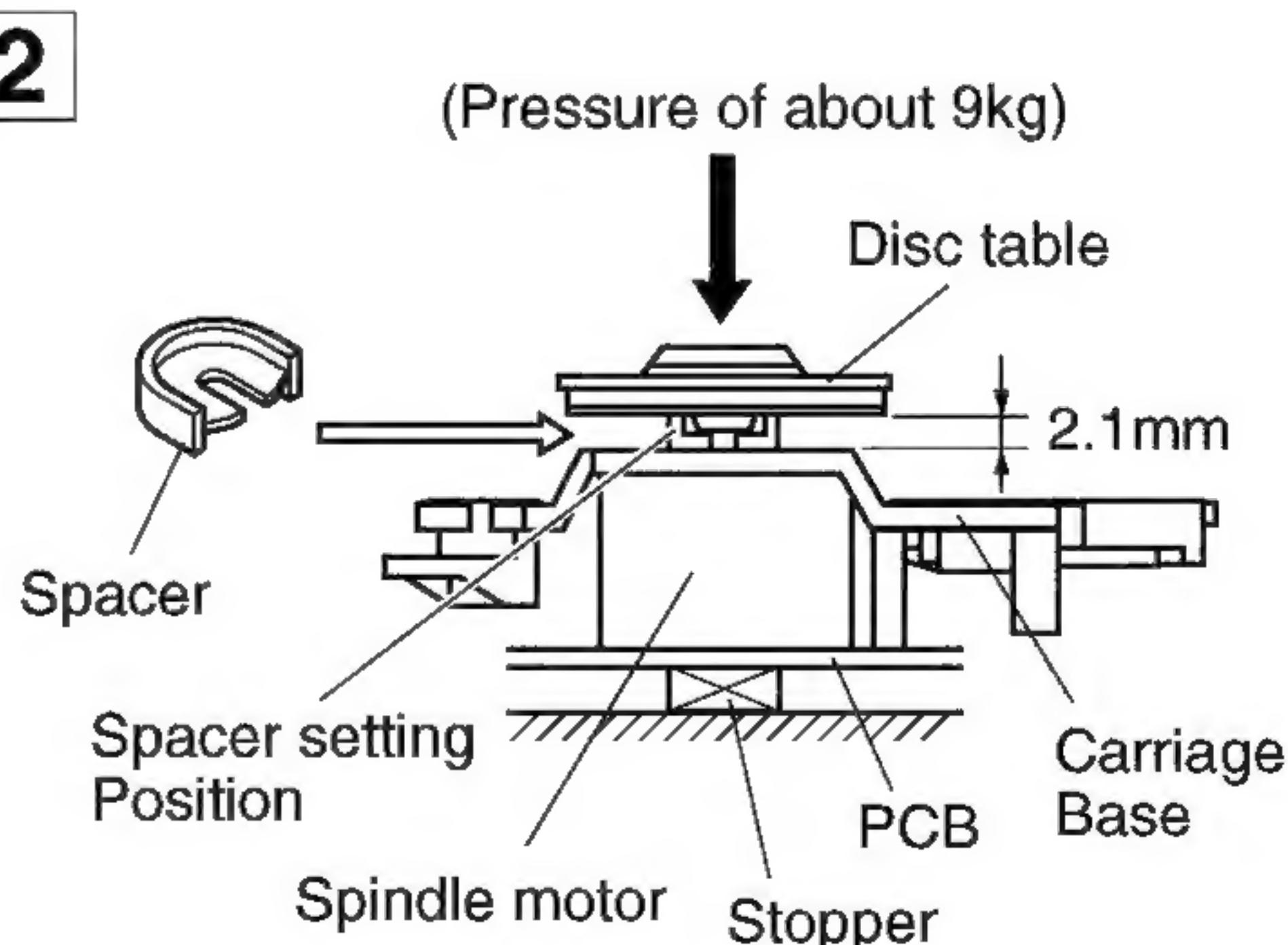
● How to Install the Disc Table

- 1 Use nippers or other tool to cut the two sections marked A in figure 1.
- 2 While supporting the spindle motor shaft with the stopper, put spacer on top of the carriage base, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

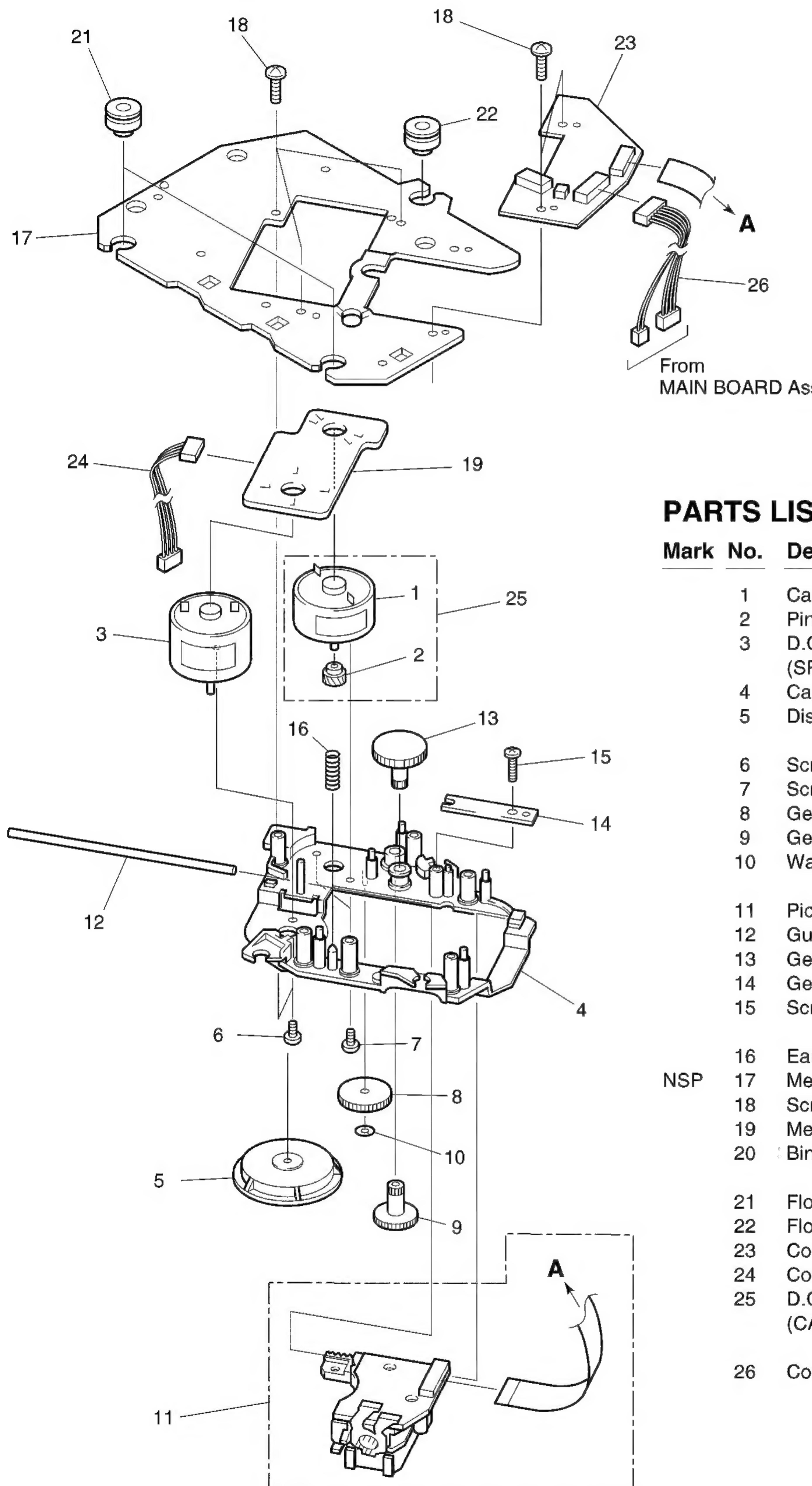
1



2



2.5 SERVO MECHANISM ASSY TT




PARTS LIST


Mark No.	Description	Parts No.
1	Carriage D.C. Motor (0.3W)	PXM1027
2	Pinion Gear	PNW2055
3	D.C. Motor Assy (SPINDLE, with Oil)	PEA1236
4	Carriage Base	PNW2699
5	Disc Table	PNW1067
6	Screw	JFZ20P030FNI
7	Screw	JFZ17P025FZK
8	Gear 3	PNW2054
9	Gear 2	PNW2053
10	Washer	WT12D032D025
11	Pickup Assy	PEA1343
12	Guide Bar	PLA1094
13	Gear 1	PNW2052
14	Gear Stopper	PNB1303
15	Screw	BPZ26P060FMC
NSP	16 Earth Spring	PBH1132
	17 Mechanism Base TT	PNB1586
	18 Screw	BPZ26P100FMC
	19 Mechanism Board Assy	PWX1192
	20 Binder	PEC-107
21	Float Rubber	PEB1031
22	Float Rubber	PEB1170
23	Connection Board Assy	PWX1525
24	Connector Assy 4P	PDE1238
25	D.C. Motor Assy (CARRIAGE)	PEA1246
26	Connector Assy 6P	PDE1286

3. SCHEMATIC DIAGRAM

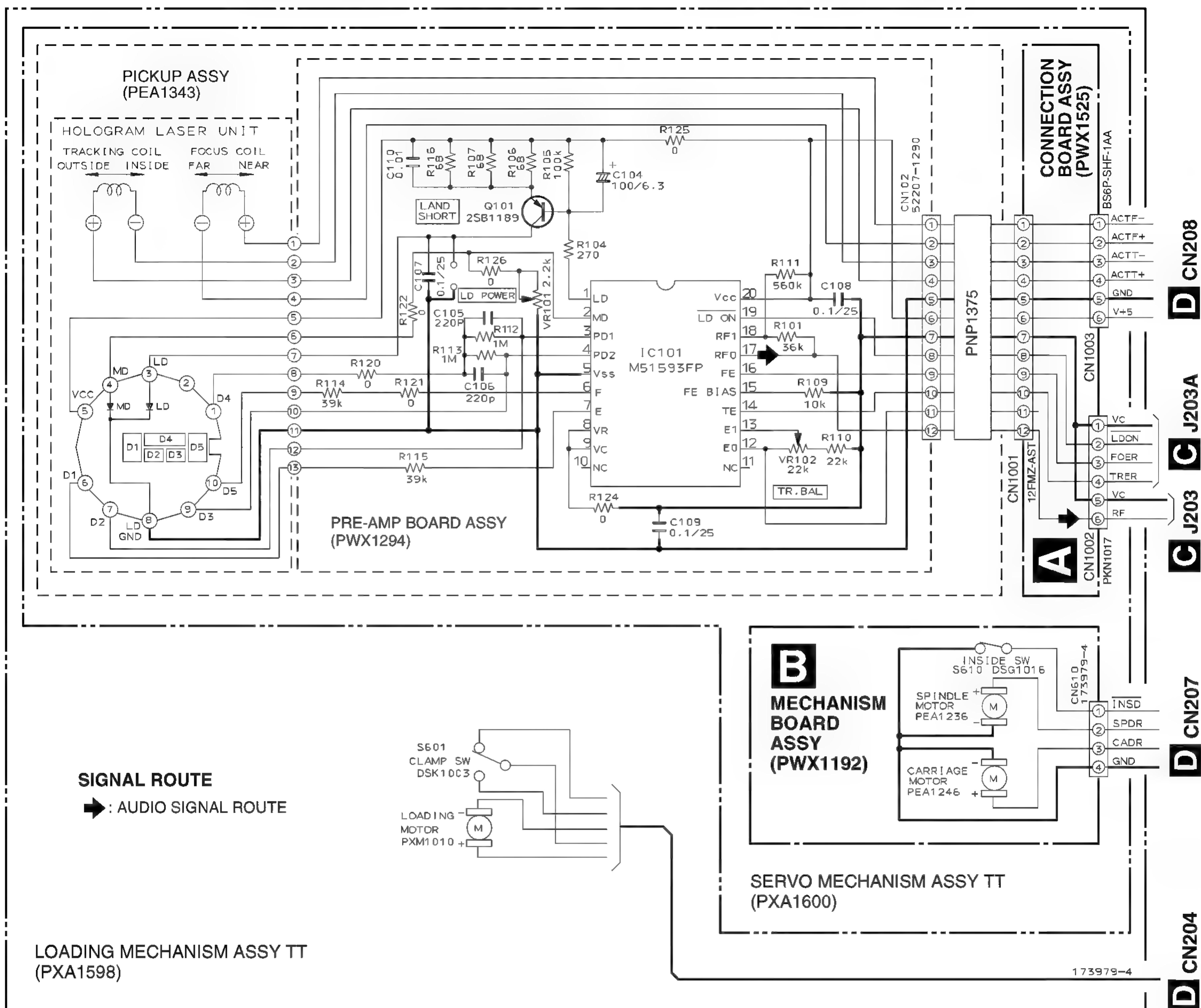
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

3.1 OVERALL SCHEMATIC DIAGRAM





3.2 CONNECTION BOARD ASSY AND MECHANISM BOARD ASSY

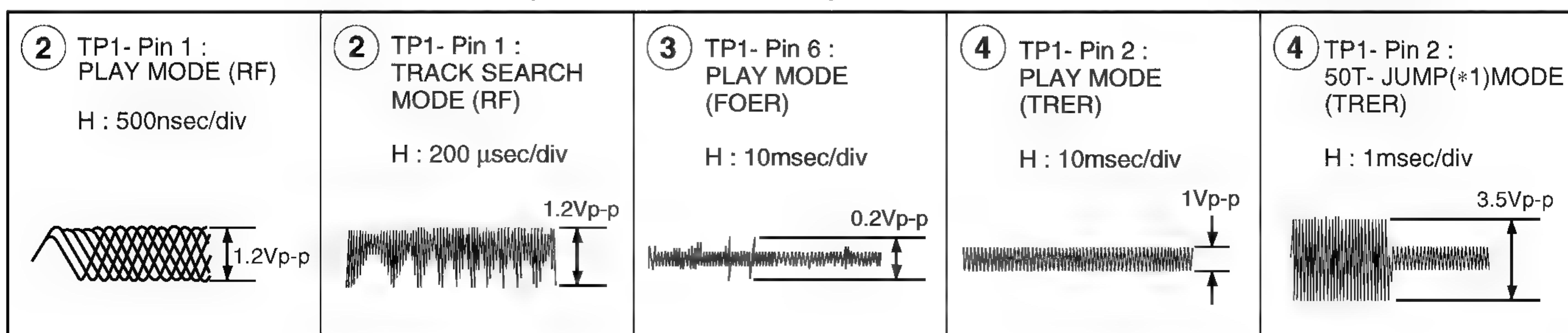


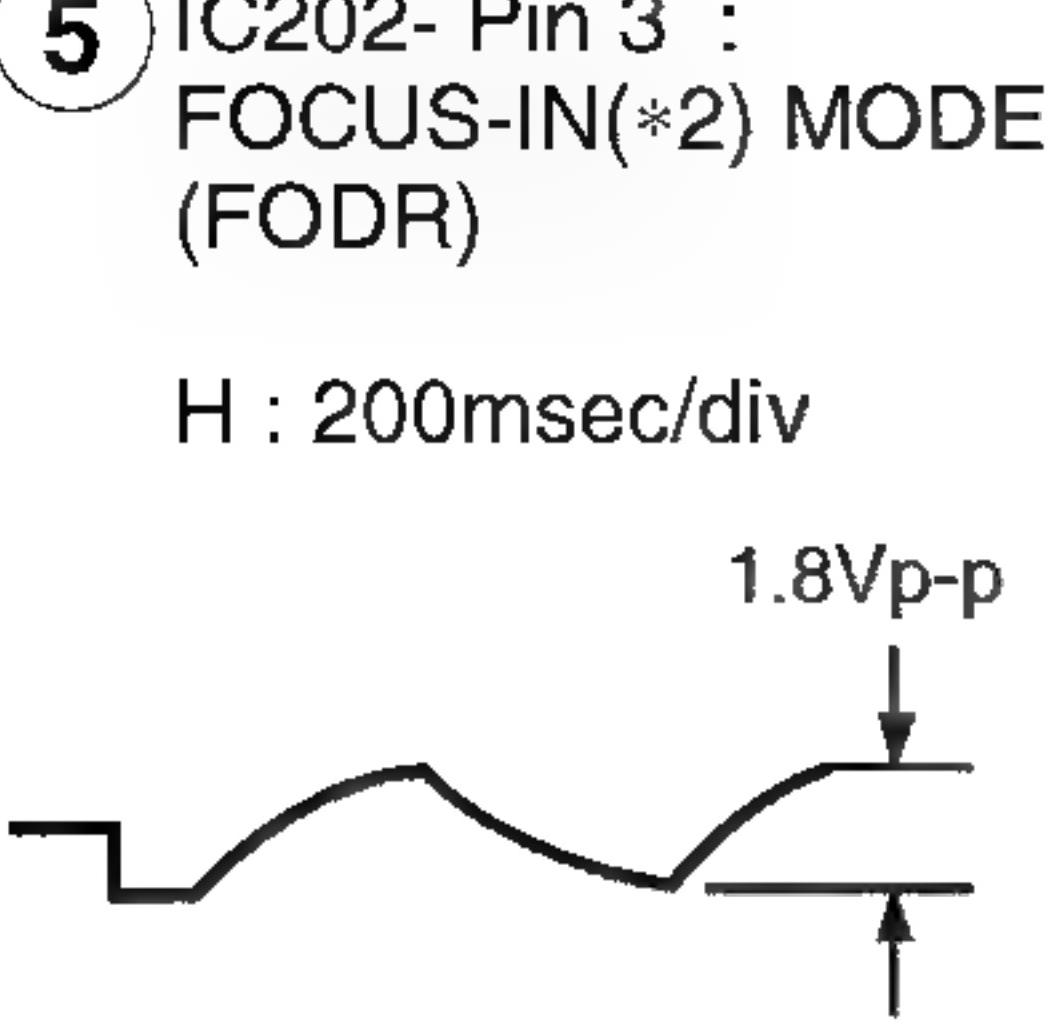
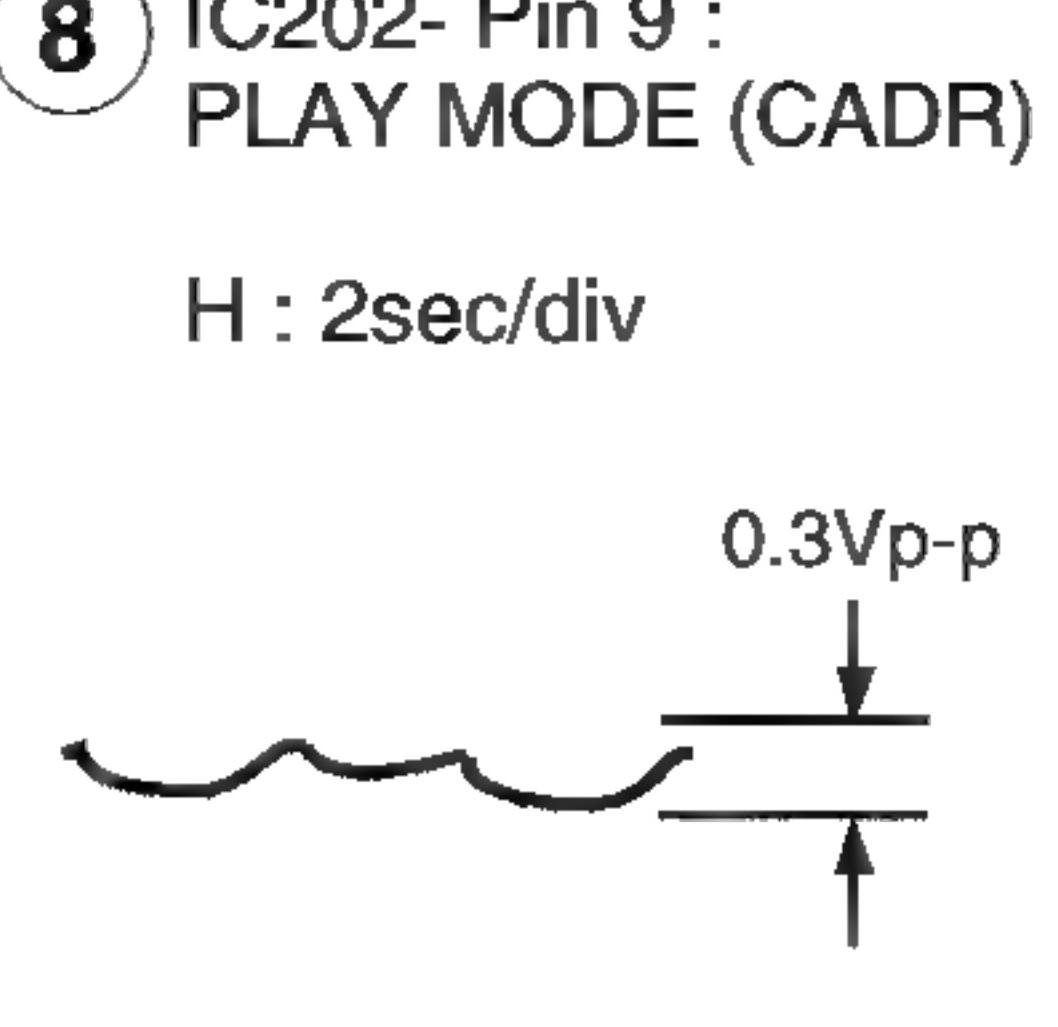
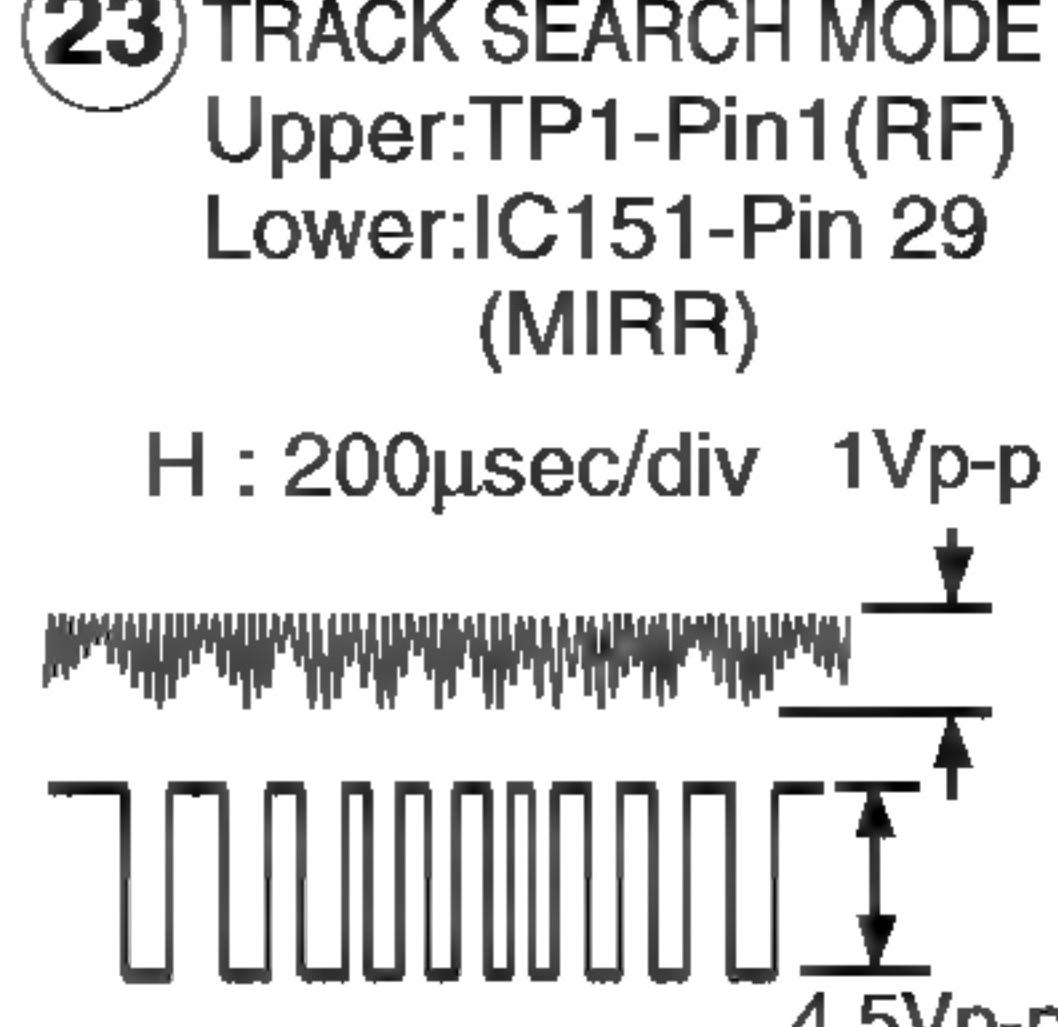
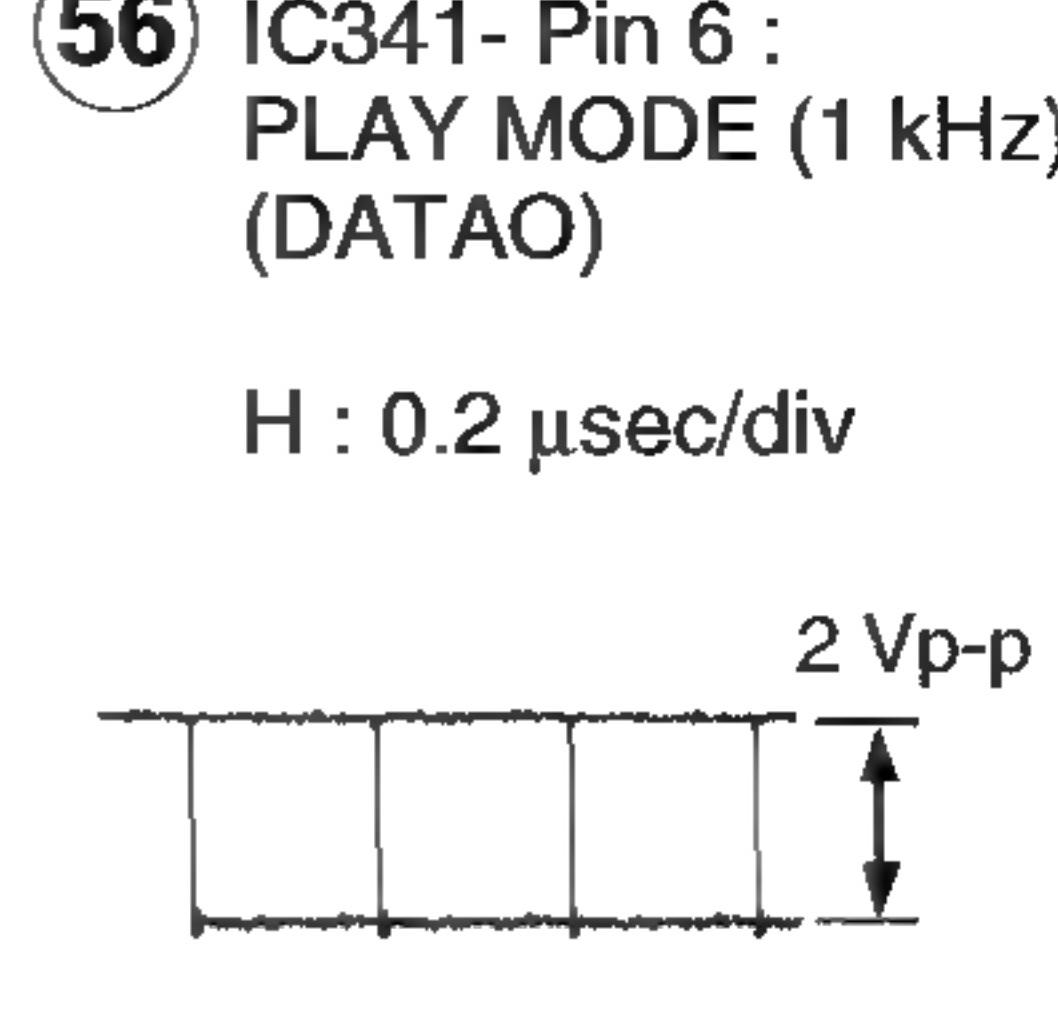
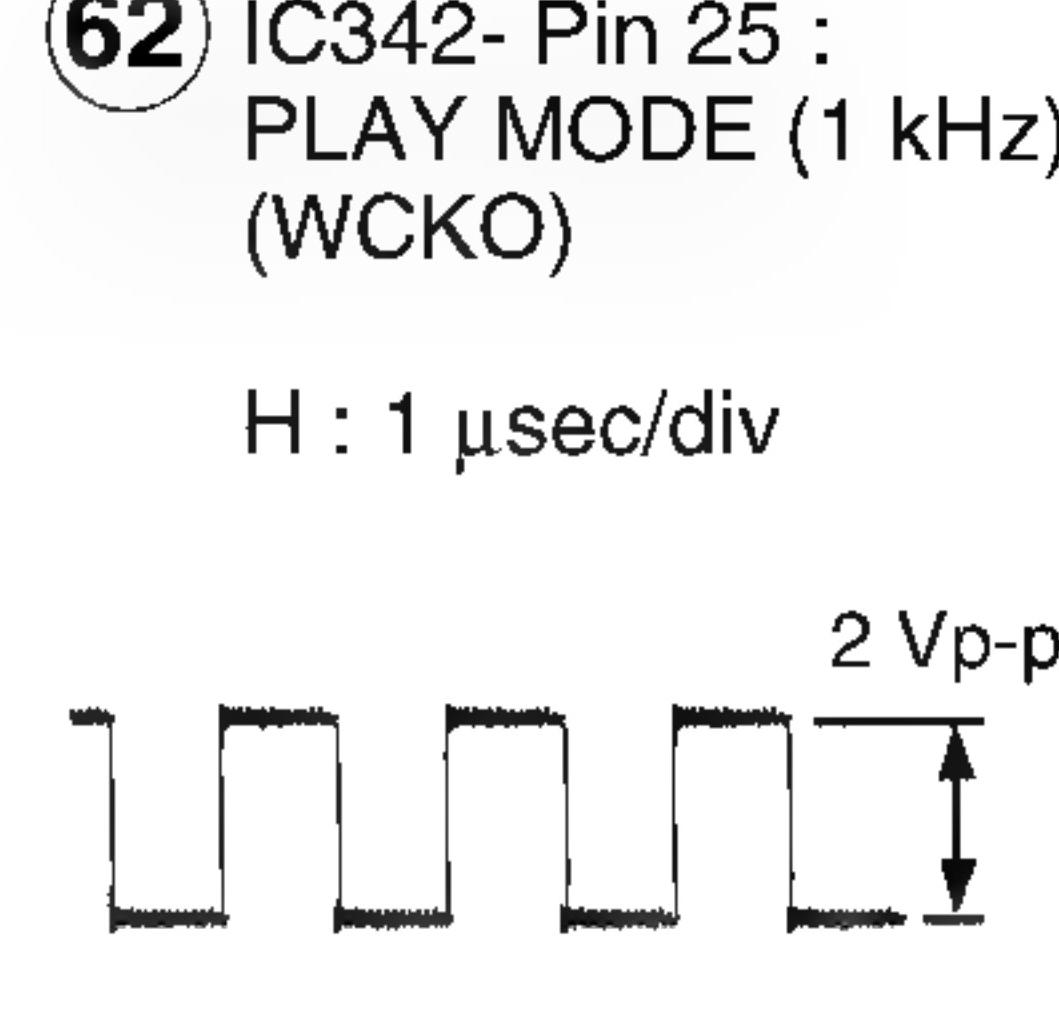
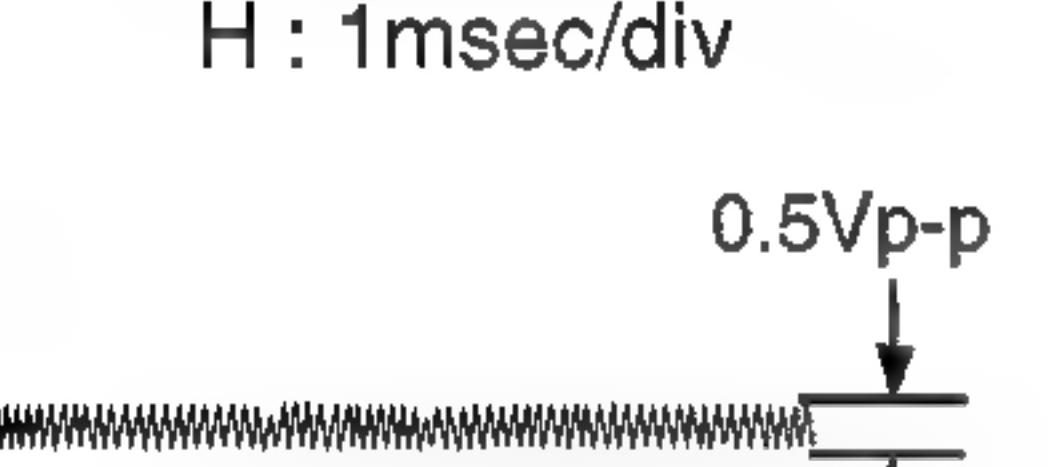
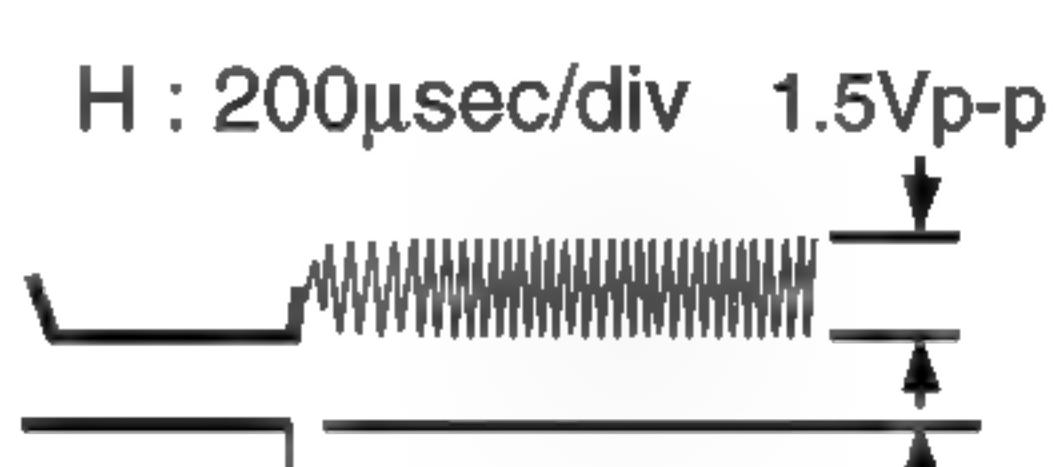
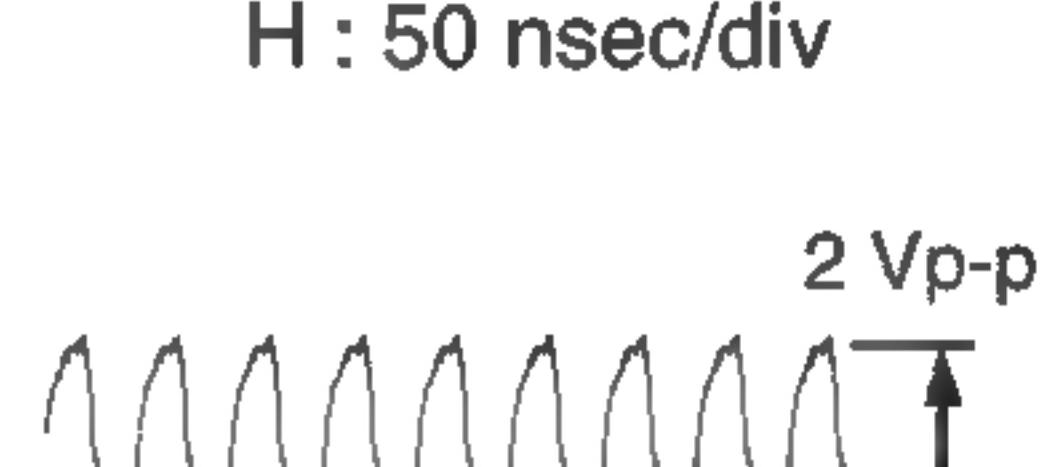
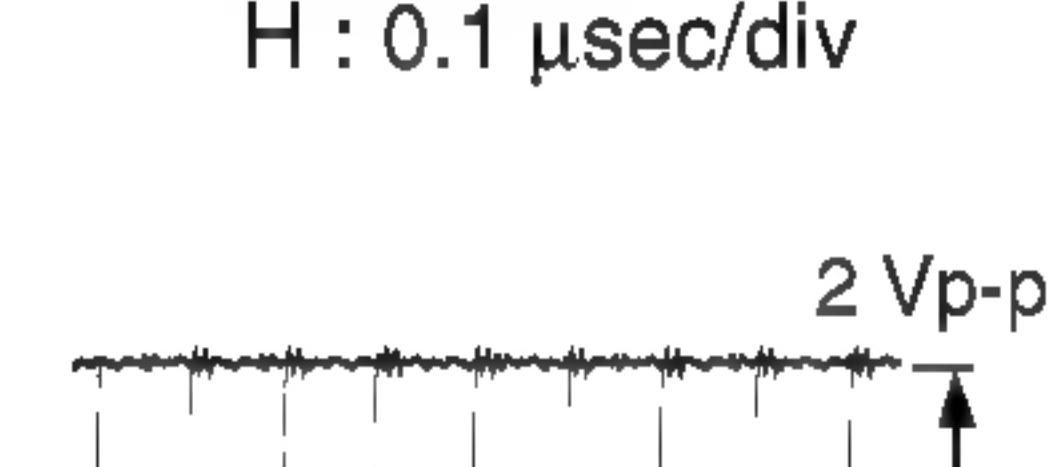
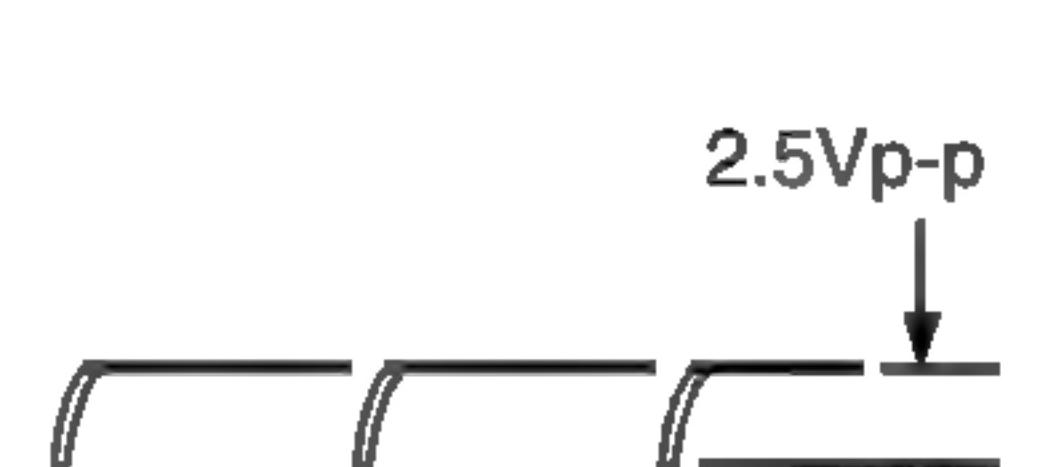
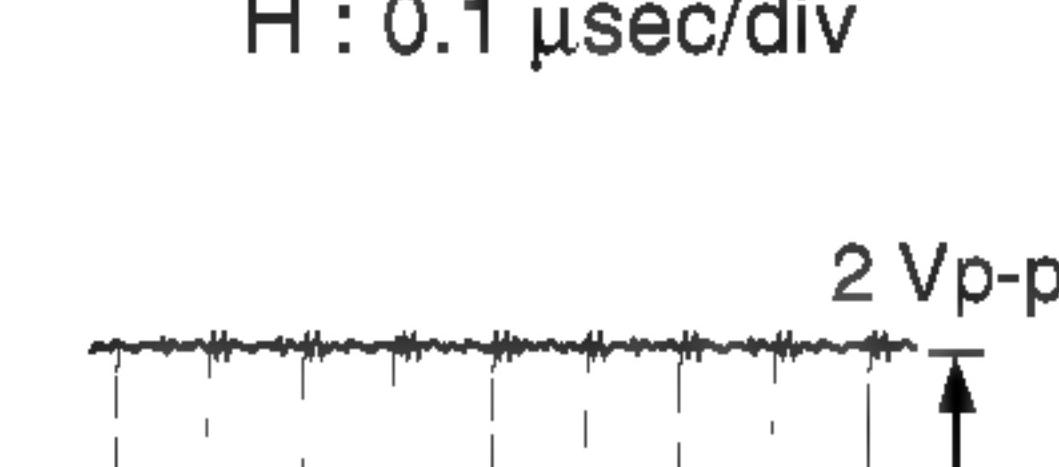
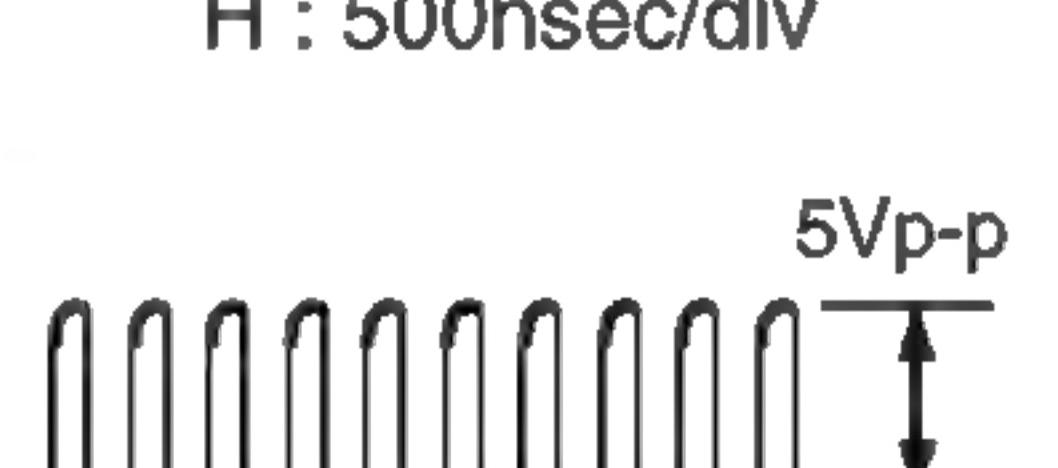
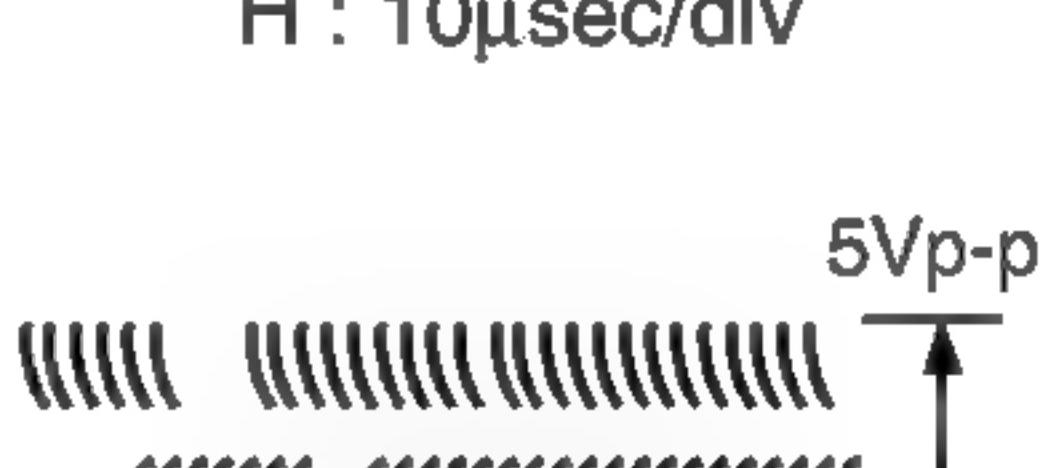
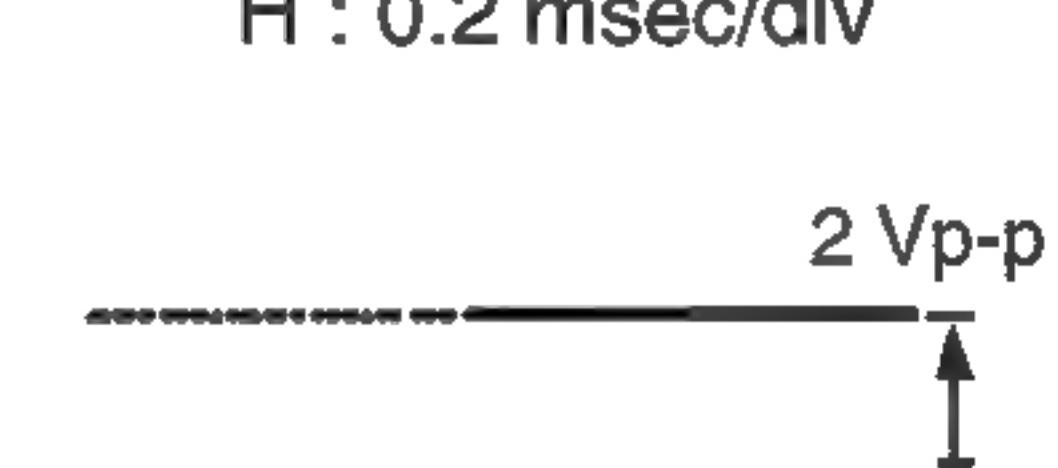
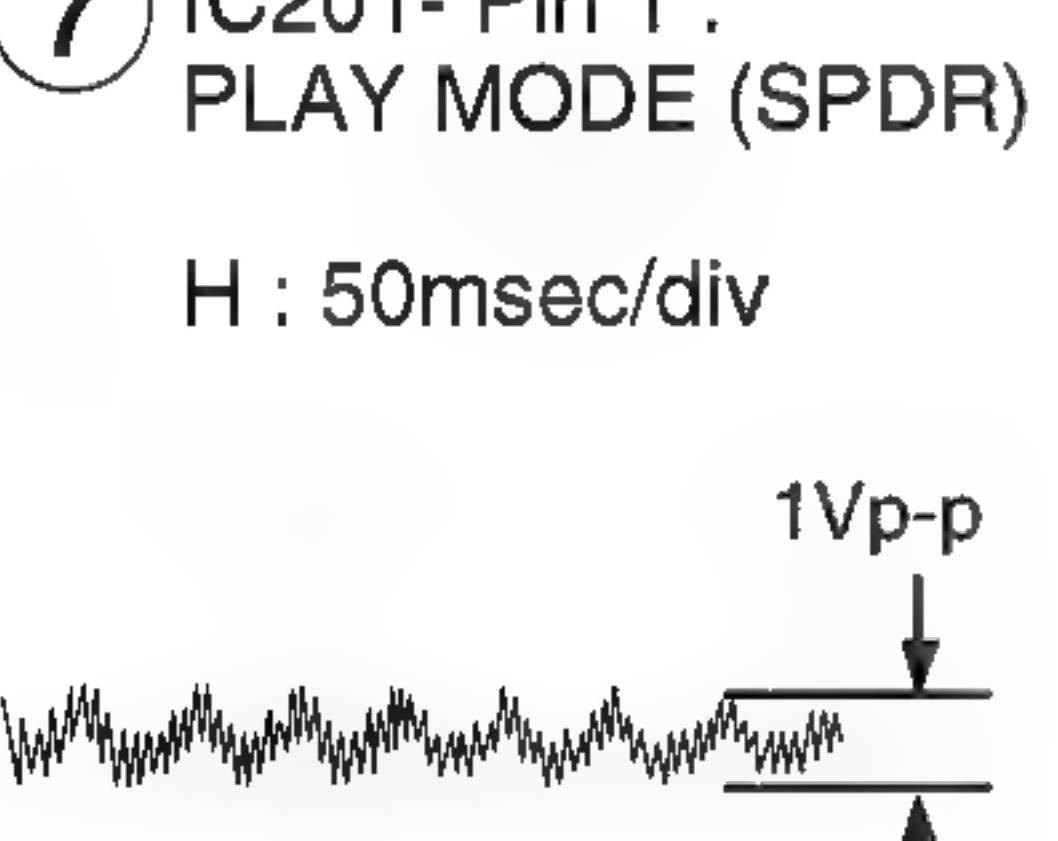
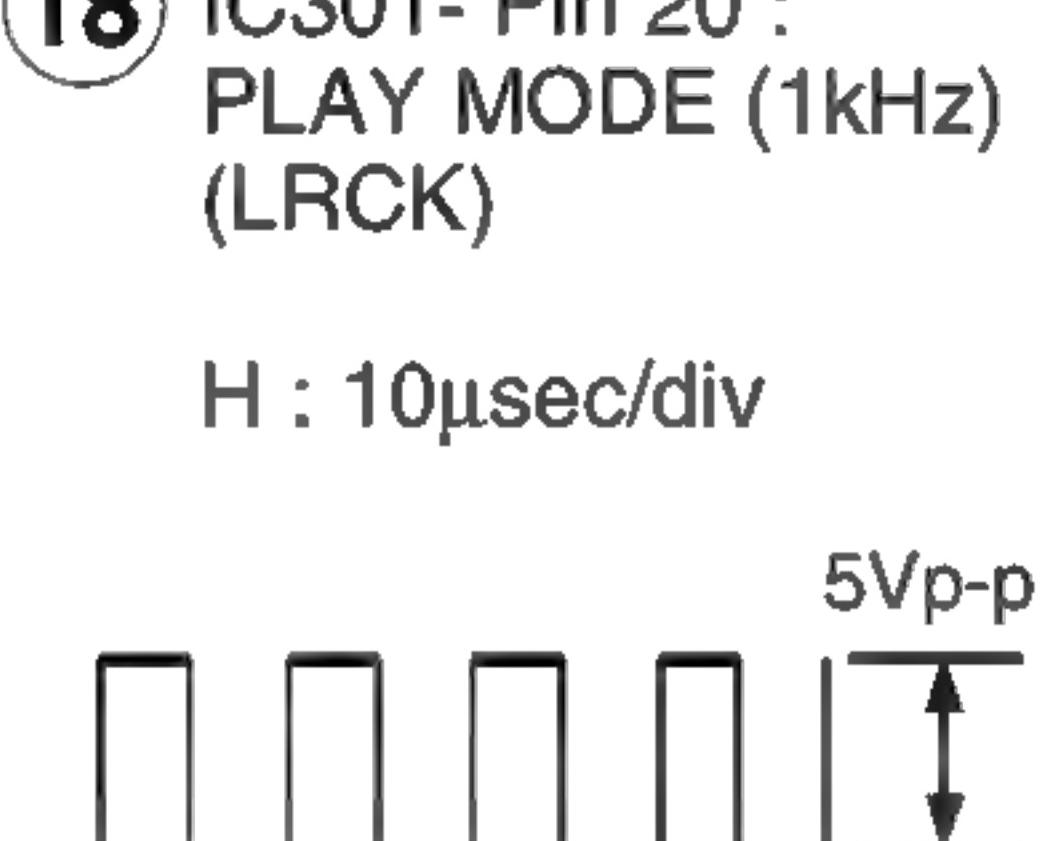
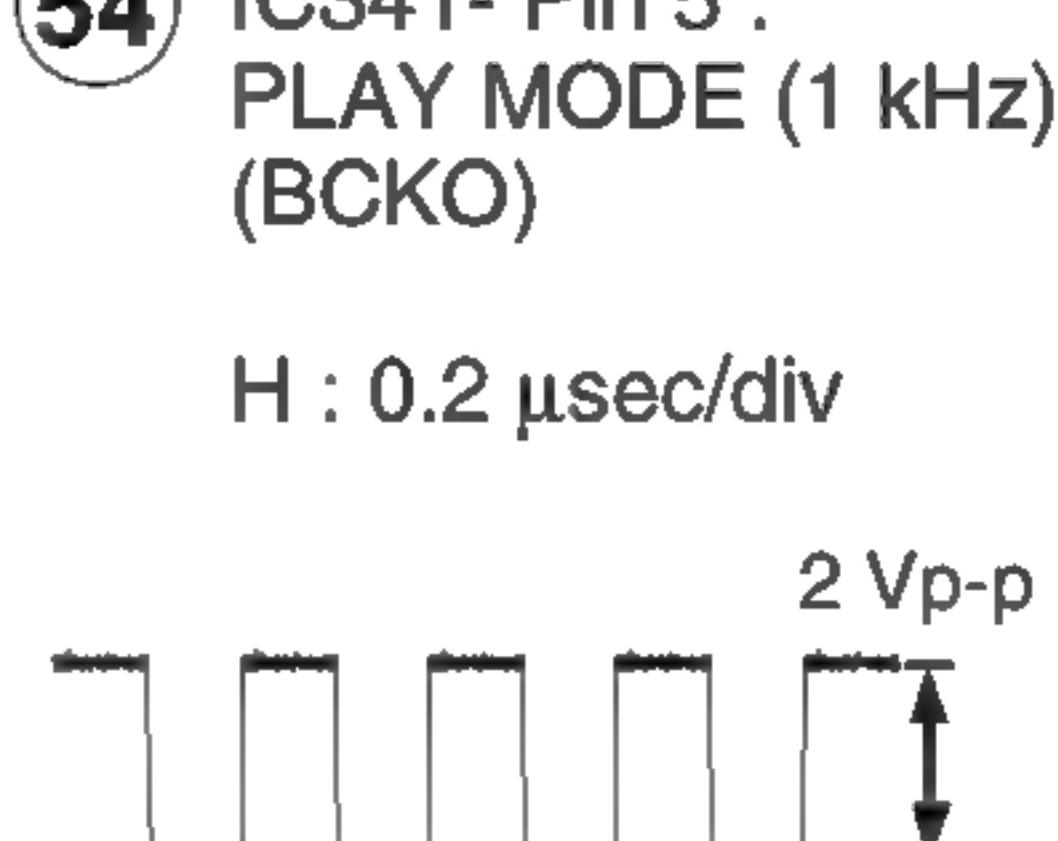
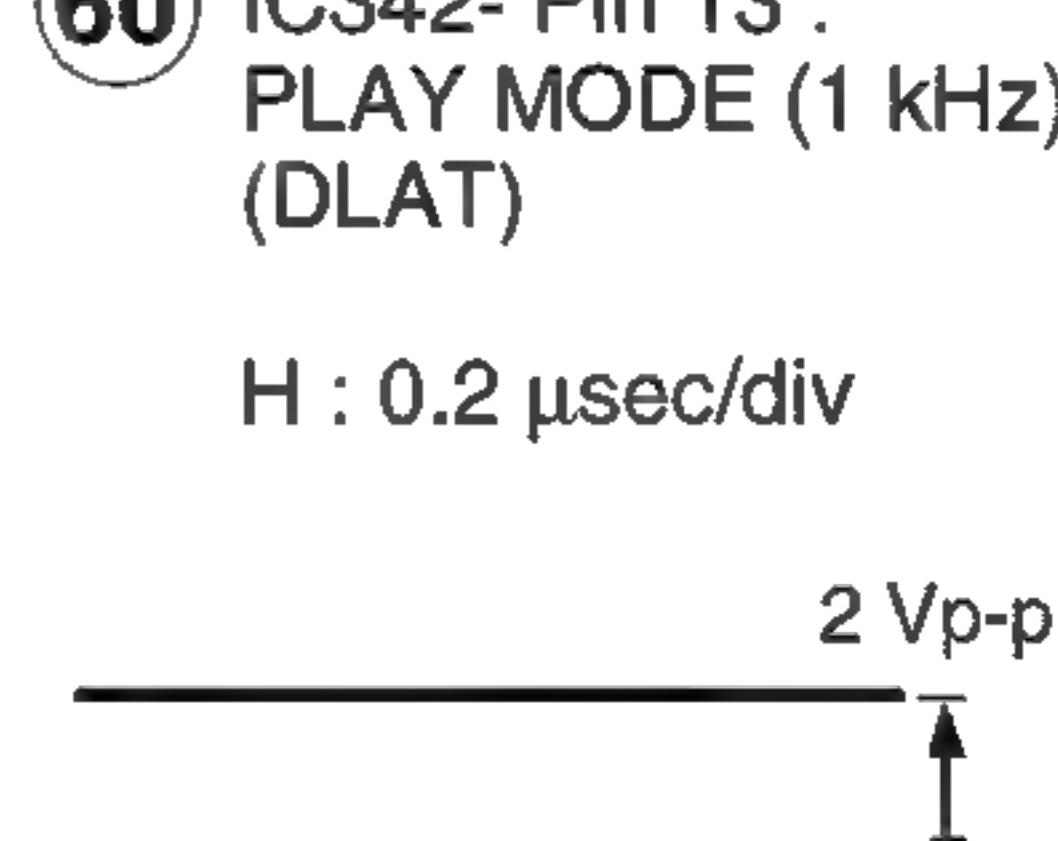
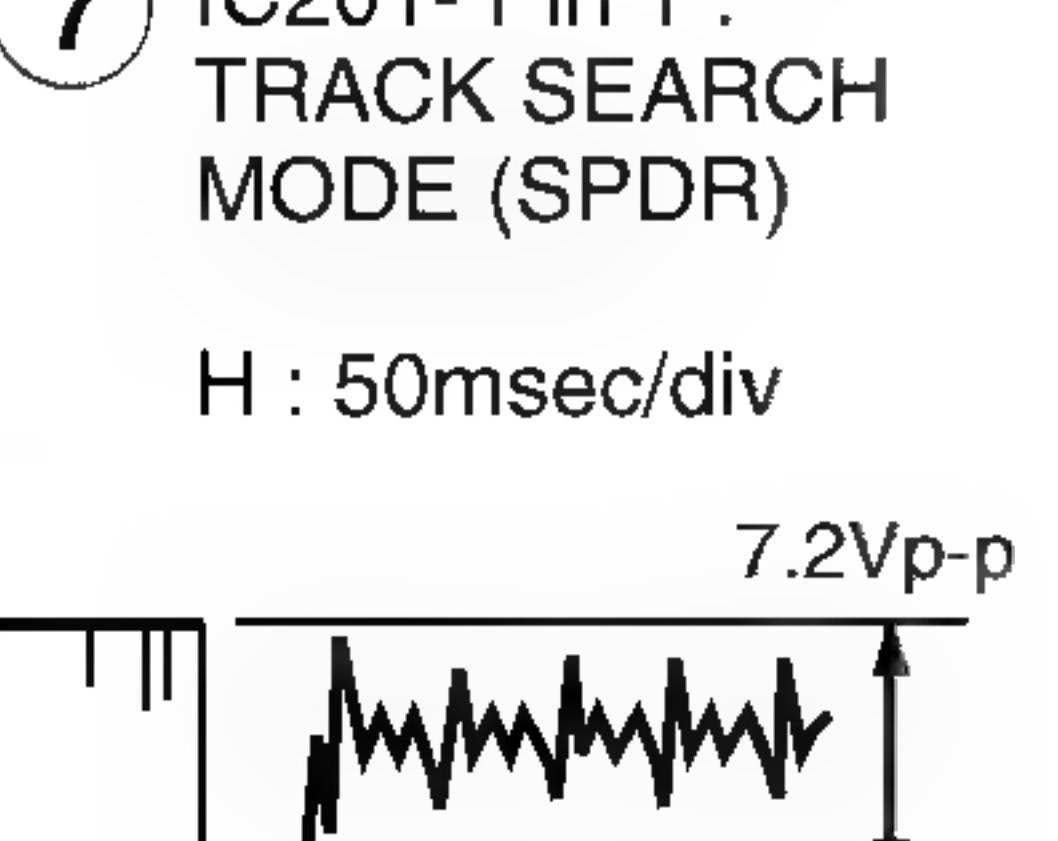
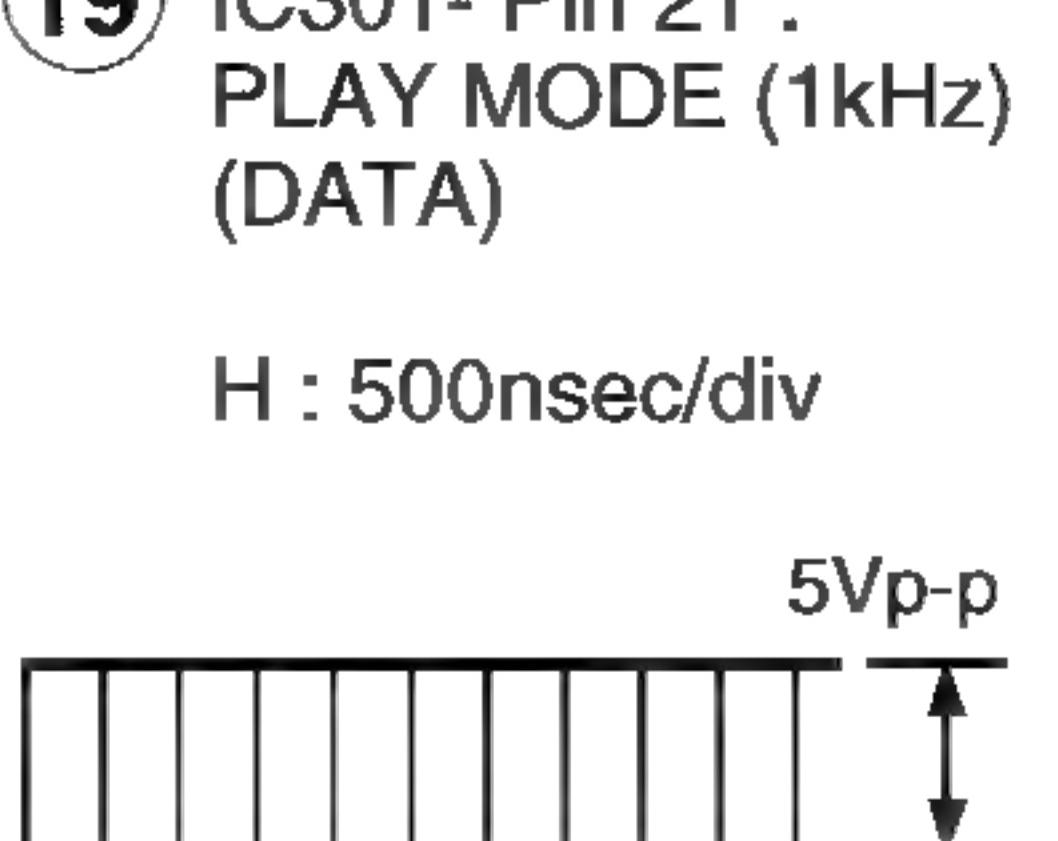
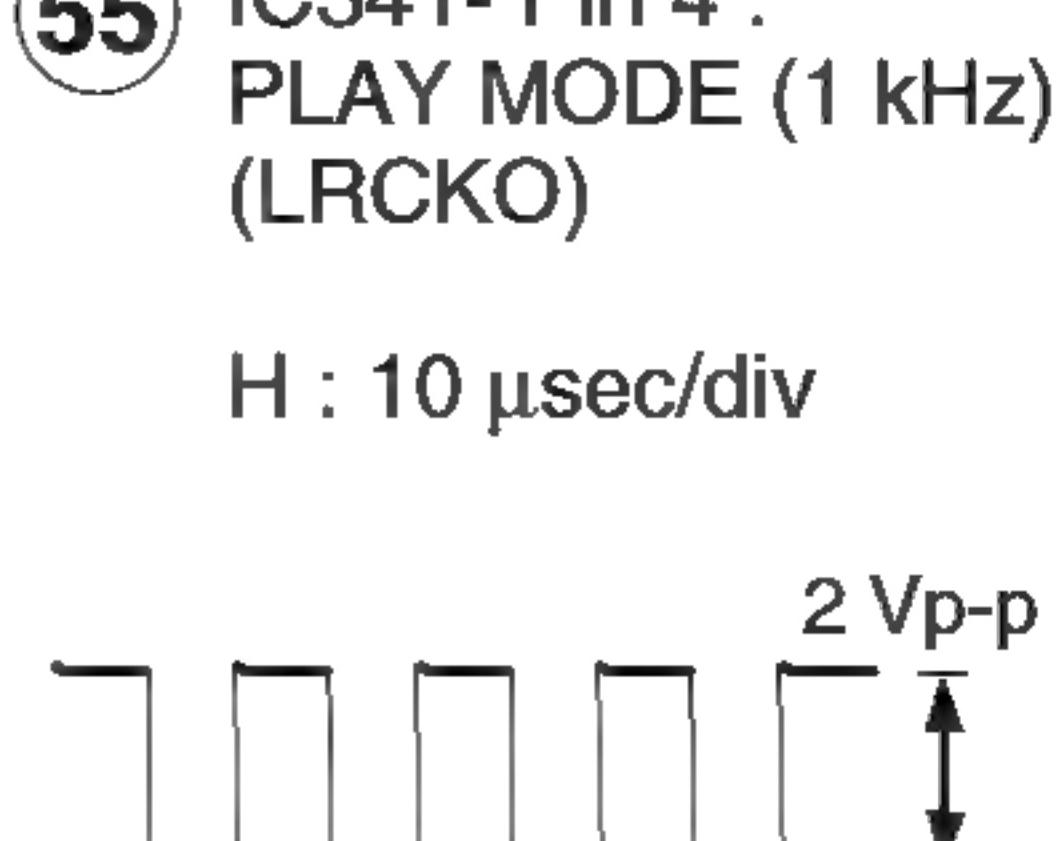
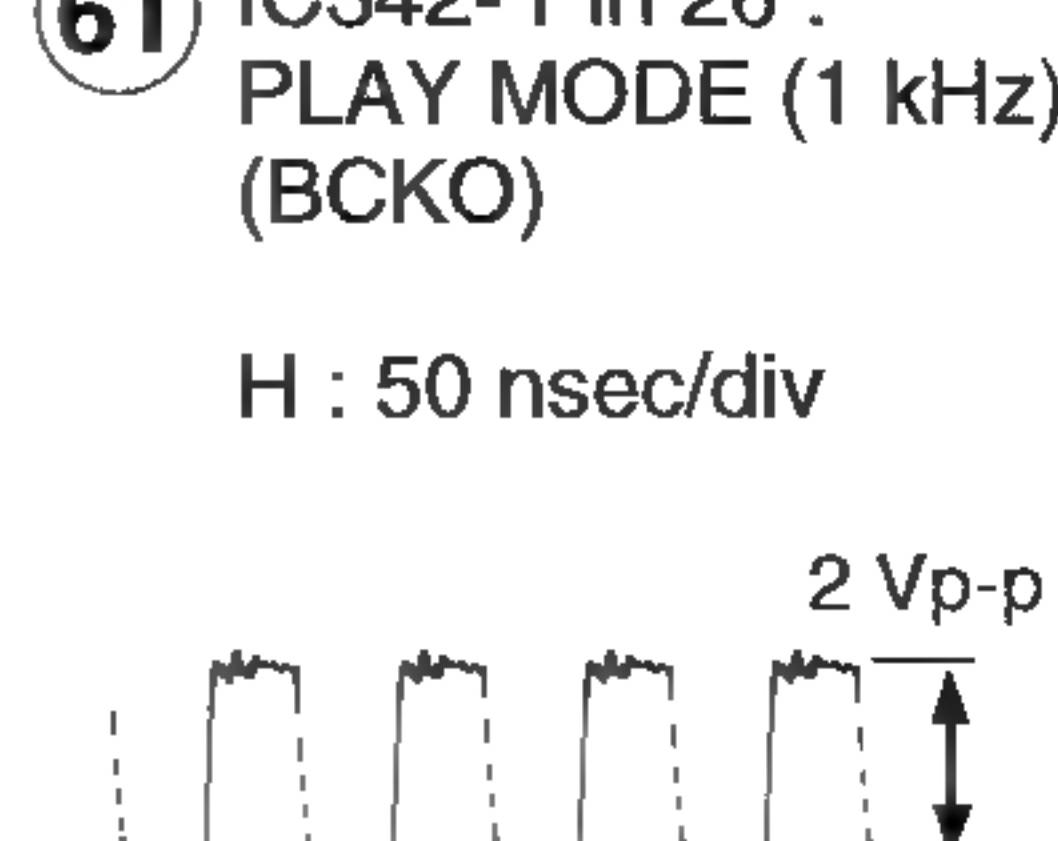
Waveforms

Note: The encircled numbers denote measuring point in the schematic diagram.


*1 50T-JUMP: After switching to the pause mode, press the manual search key.


*2 FOCUS-IN: Press the play key without loading a disc.



5 IC202- Pin 3 : FOCUS-IN(*2) MODE (FODR) H : 200msec/div 	8 IC202- Pin 9 : PLAY MODE (CADR) H : 2sec/div 	23 TRACK SEARCH MODE Upper:TP1-Pin1(RF) Lower:IC151-Pin 29 (MIRR) H : 200μsec/div 1Vp-p 	56 IC341- Pin 6 : PLAY MODE (1 kHz) (DATAO) H : 0.2 μsec/div 	62 IC342- Pin 25 : PLAY MODE (1 kHz) (WCKO) H : 1 μsec/div 
5 IC202- Pin 3 : PLAY MODE (FODR) H : 1msec/div 	8 IC202- Pin 9 : TRACK SEARCH MODE (CADR) H : 200msec/div 	24 PLAY MODE Upper:TP1-Pin1(RF) Lower:IC101-Pin 30 (DFCT) H : 200μsec/div 1.5Vp-p 	57 IC342- Pin 6 : PLAY MODE (1 kHz) (XTI) H : 50 nsec/div 	63 IC342- Pin 24 : PLAY MODE (1 kHz) (DOL) H : 0.1 μsec/div 
6 IC202- Pin 4 : PLAY MODE (TRDR) H : 1msec/div 	9 IC301- Pin 17 : PLAY MODE ASY0 (EFM) H : 500nsec/div 	33 IC301- Pin 3 : PLAY MODE (MDP) H : 2μsec/div 	58 IC342- Pin 11 : PLAY MODE (1 kHz) (CLOK) H : 0.2 msec/div 	64 IC342- Pin 23 : PLAY MODE (1 kHz) (DOR) H : 0.1 μsec/div 
6 IC202- Pin 4 : 50T-JUMP(*1) MODE (TRDR) H : 1msec/div 	16 IC301- Pin 22 : PLAY MODE (1kHz) (BCLK) H : 500nsec/div 	53 IC301- Pin 9 : PLAY MODE (PCO) H : 10μsec/div 	59 IC342- Pin 12 : PLAY MODE (1 kHz) (MDAT) H : 0.2 msec/div 	65 IC404- Pin 7 : PLAY MODE (1 kHz) H : 0.2 msec/div 
7 IC201- Pin 1 : PLAY MODE (SPDR) H : 50msec/div 	18 IC301- Pin 20 : PLAY MODE (1kHz) (LRCK) H : 10μsec/div 	54 IC341- Pin 5 : PLAY MODE (1 kHz) (BCKO) H : 0.2 μsec/div 	60 IC342- Pin 13 : PLAY MODE (1 kHz) (DLAT) H : 0.2 μsec/div 	
7 IC201- Pin 1 : TRACK SEARCH MODE (SPDR) H : 50msec/div 	19 IC301- Pin 21 : PLAY MODE (1kHz) (DATA) H : 500nsec/div 	55 IC341- Pin 4 : PLAY MODE (1 kHz) (LRCKO) H : 10 μsec/div 	61 IC342- Pin 26 : PLAY MODE (1 kHz) (BCKO) H : 50 nsec/div 	

3.3 MAIN BOARD ASSY



G J701**F CN501**


(1) HPLch
 (2) HPRch
 (3) B3B-PH-K-S

0V / R452 22K PU


R451 22K

C

3.4 SERVO POWER BOARD ASSY, ANALOG POWER BOARD ASSY AND PHONE BOARD ASSY



3.5 DISPLAY BOARD ASSY AND FUNCTION BOARD ASSY



FUNCTION BOARD ASSY (PWZ3532)

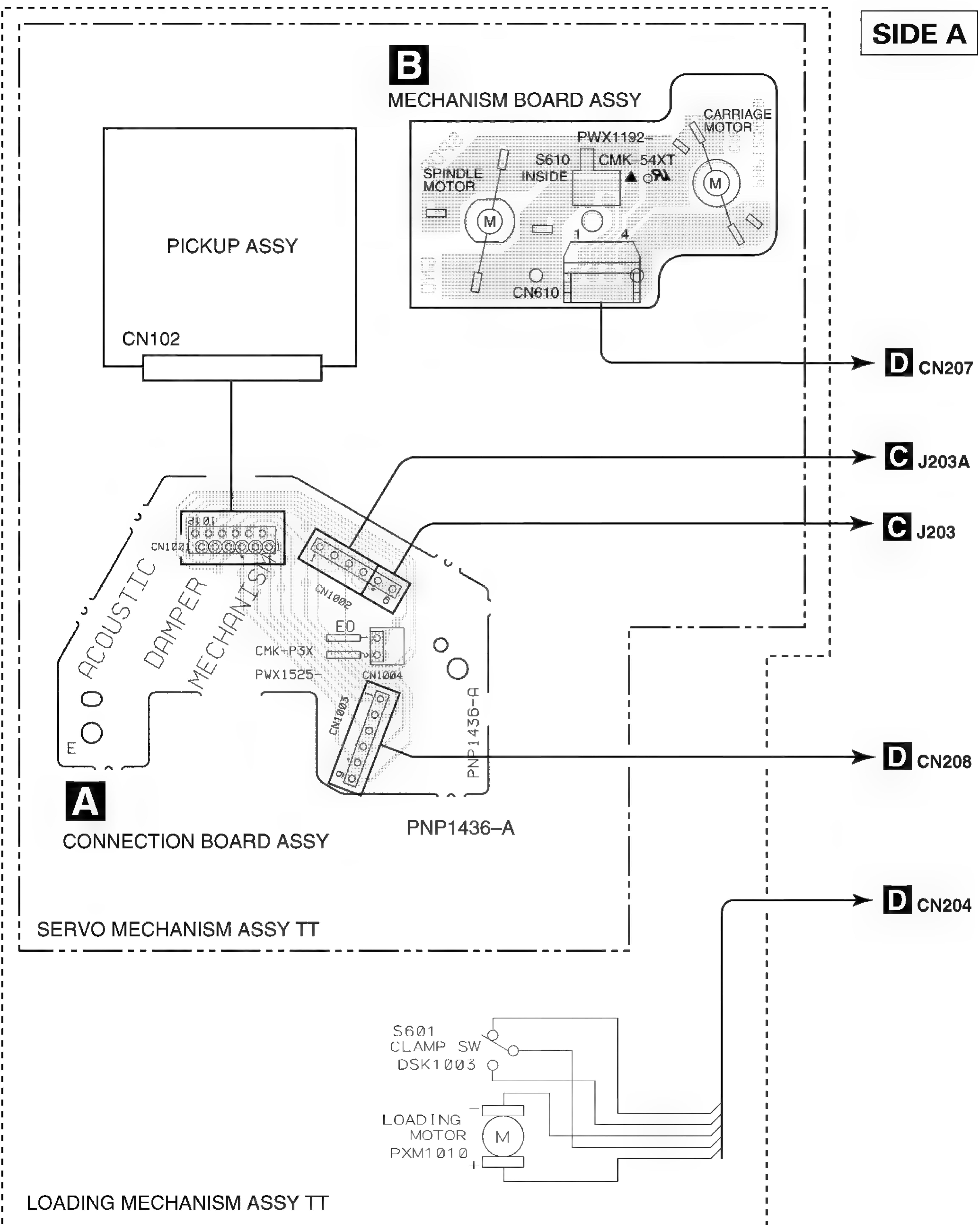
5

G

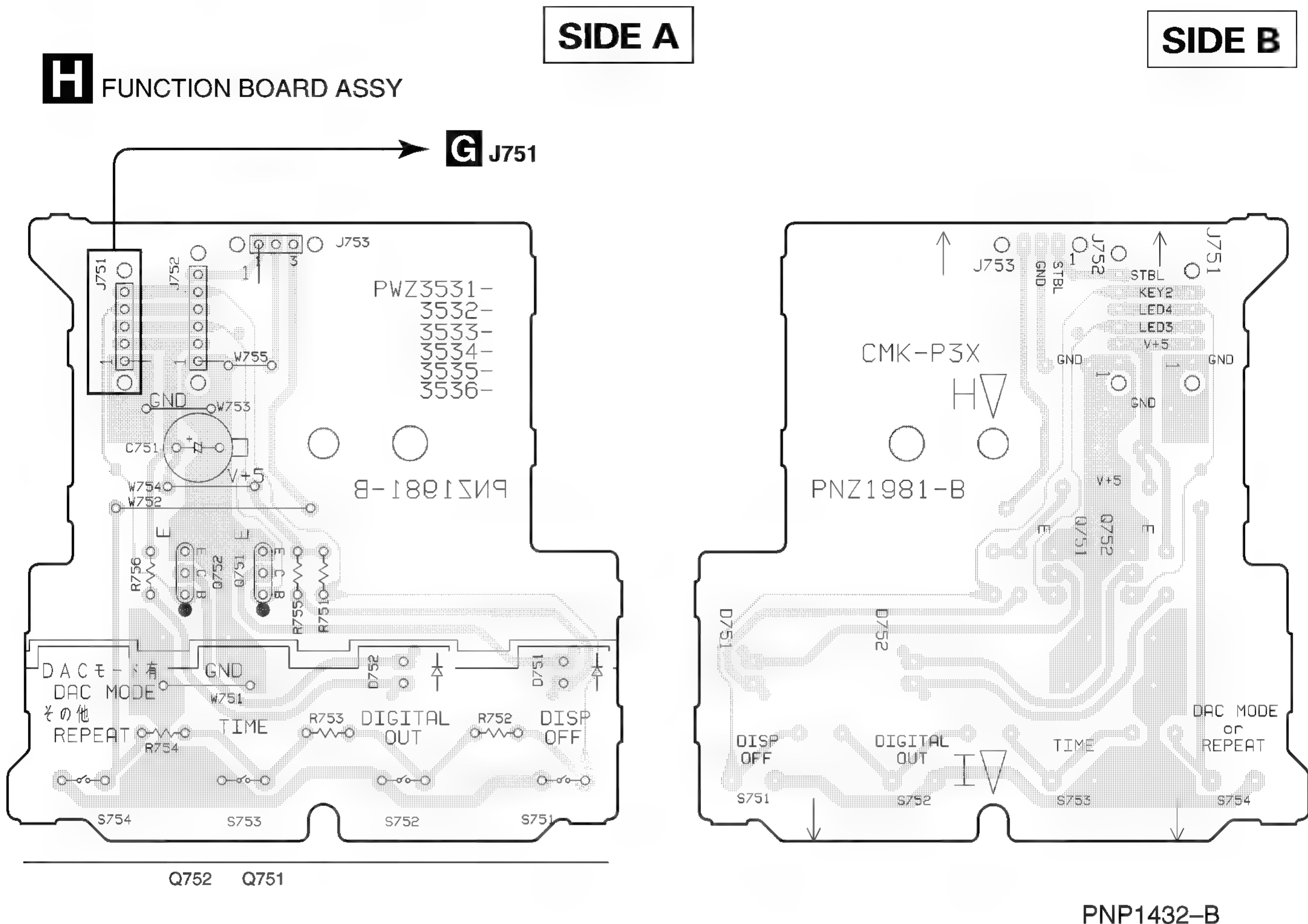
H

4. PCB CONNECTION DIAGRAM

4.1 CONNECTION BOARD ASSY AND MECHANISM BOARD ASSY



4.2 FUNCTION BOARD ASSY



NOTE FOR PCB DIAGRAMS:

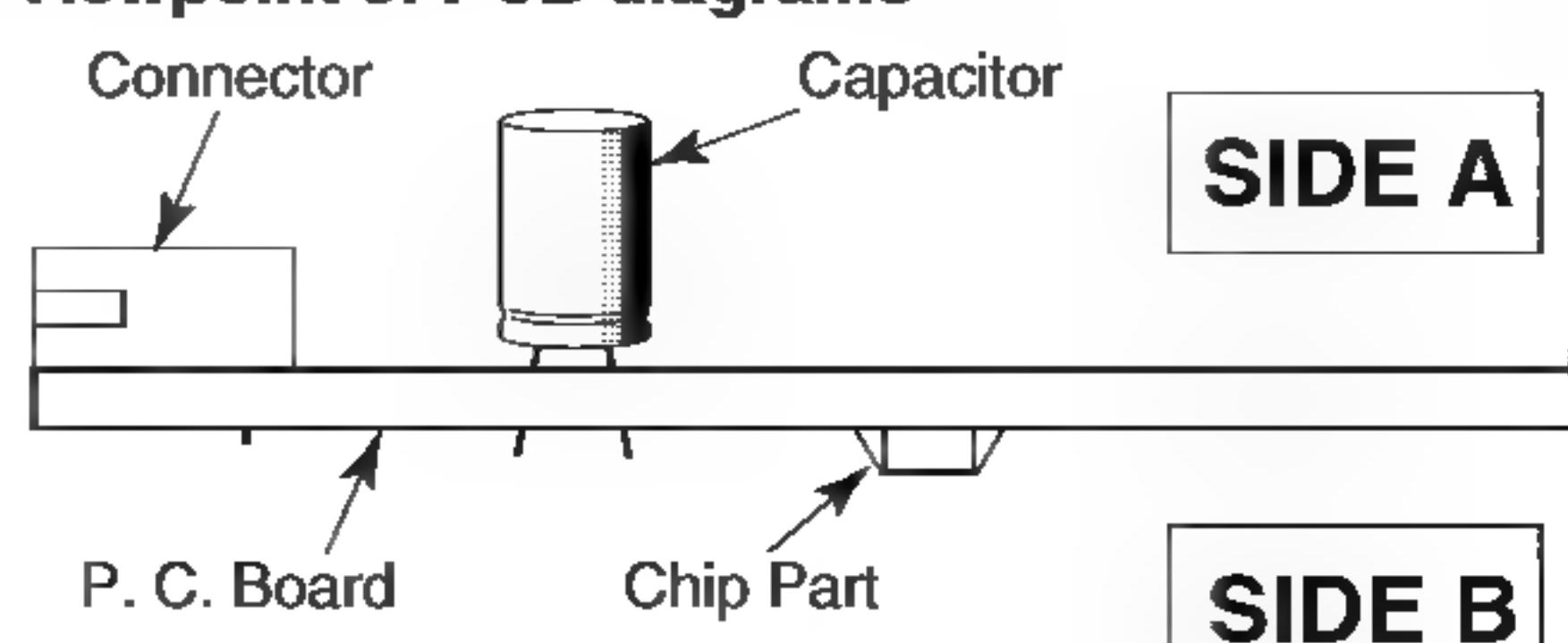
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Resistor array
		3-terminal regulator
		Transistor
		Transistor with resistor
		Field effect transistor

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Resistor array
		3-terminal regulator

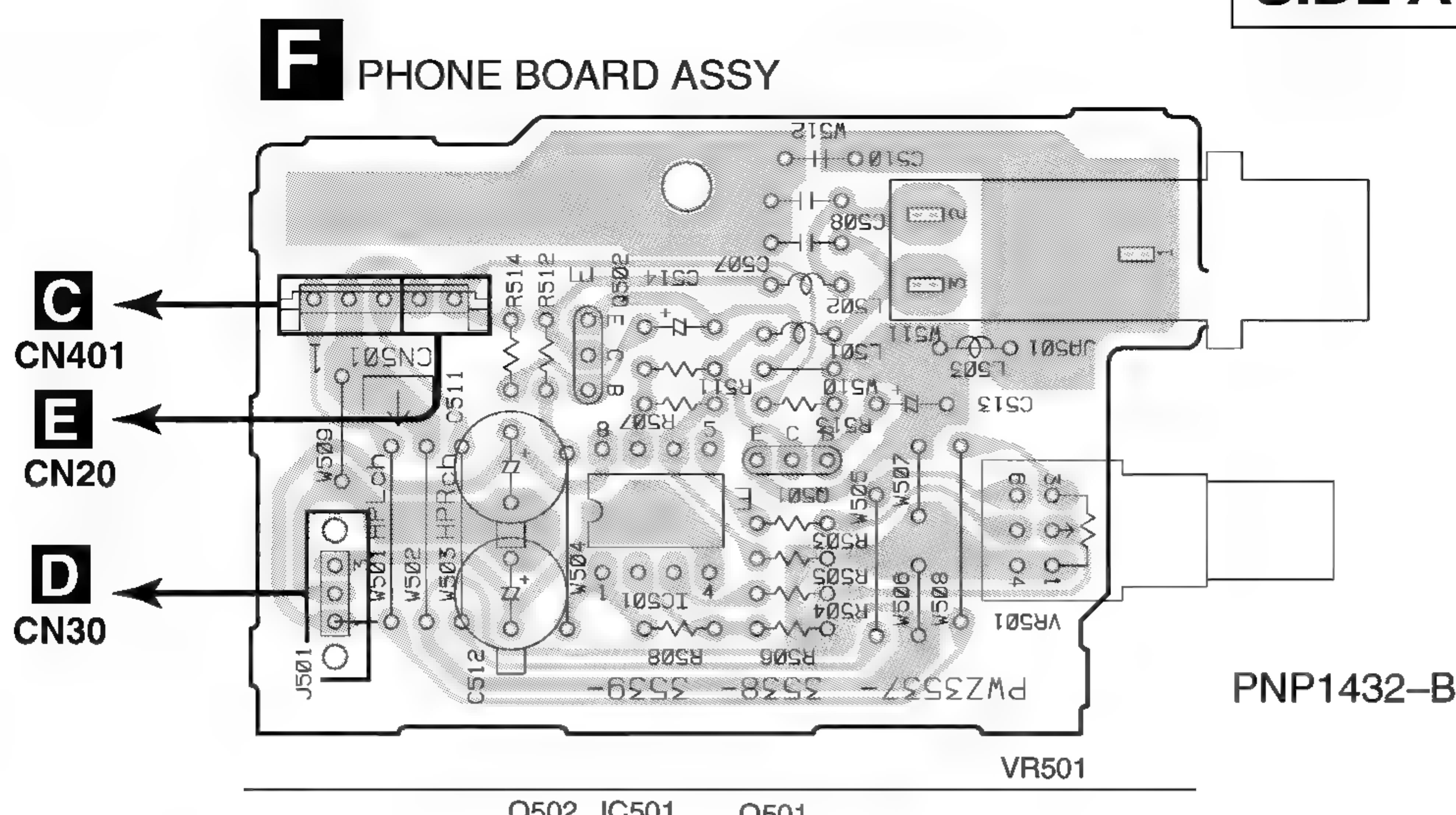
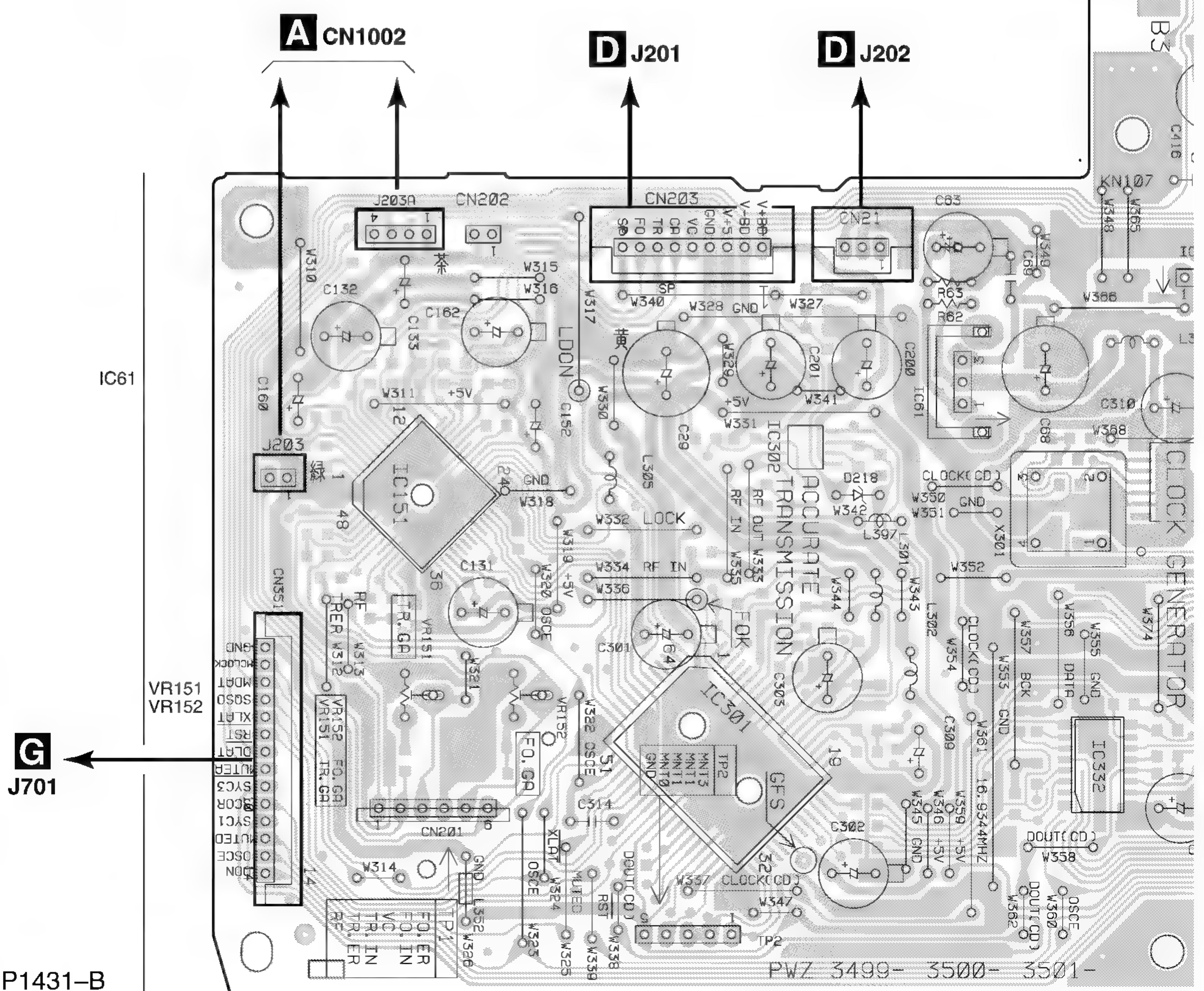
3. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.

4. Viewpoint of PCB diagrams




4.3 MAIN BOARD ASSY AND PHONE BOARD ASSY


SIDE A

**C MAIN BOARD ASSY**

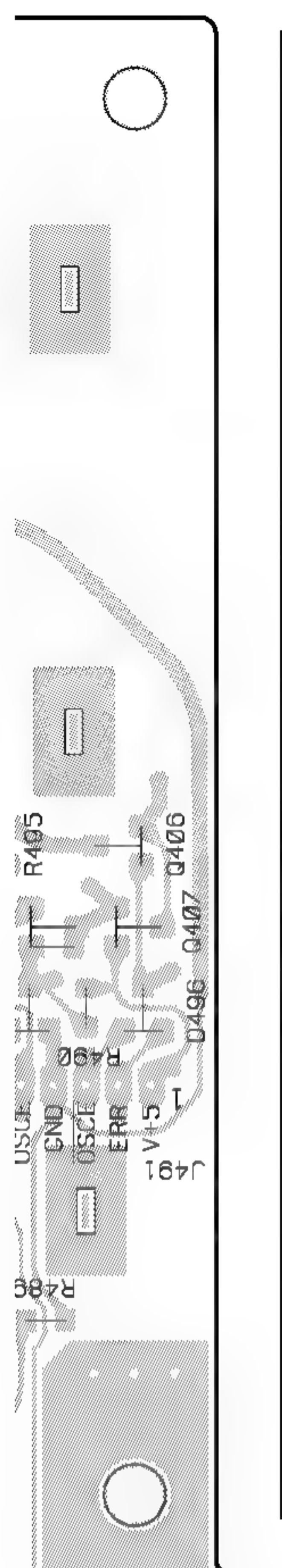
SIDE A



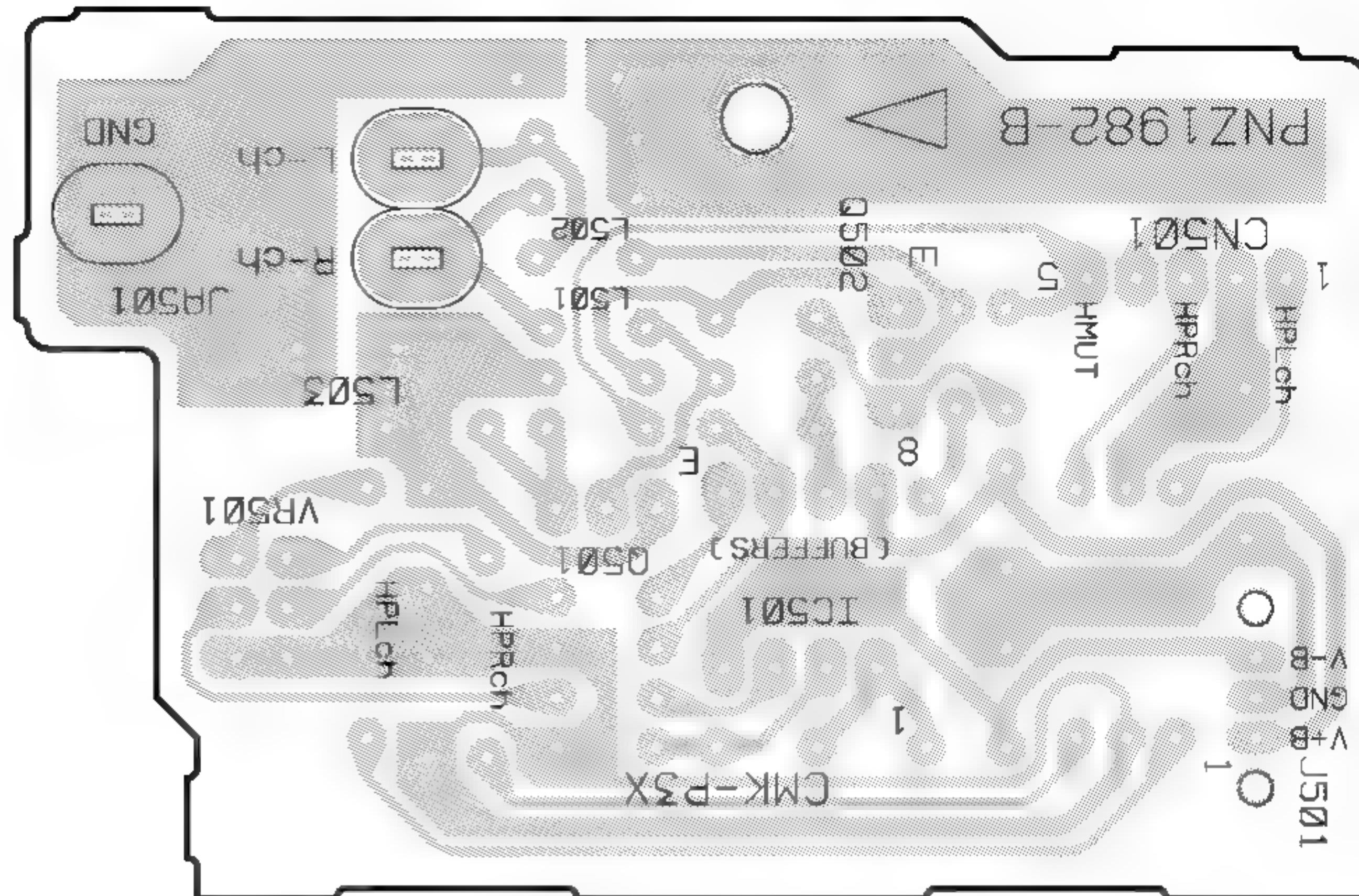
C MAIN BOARD ASSY



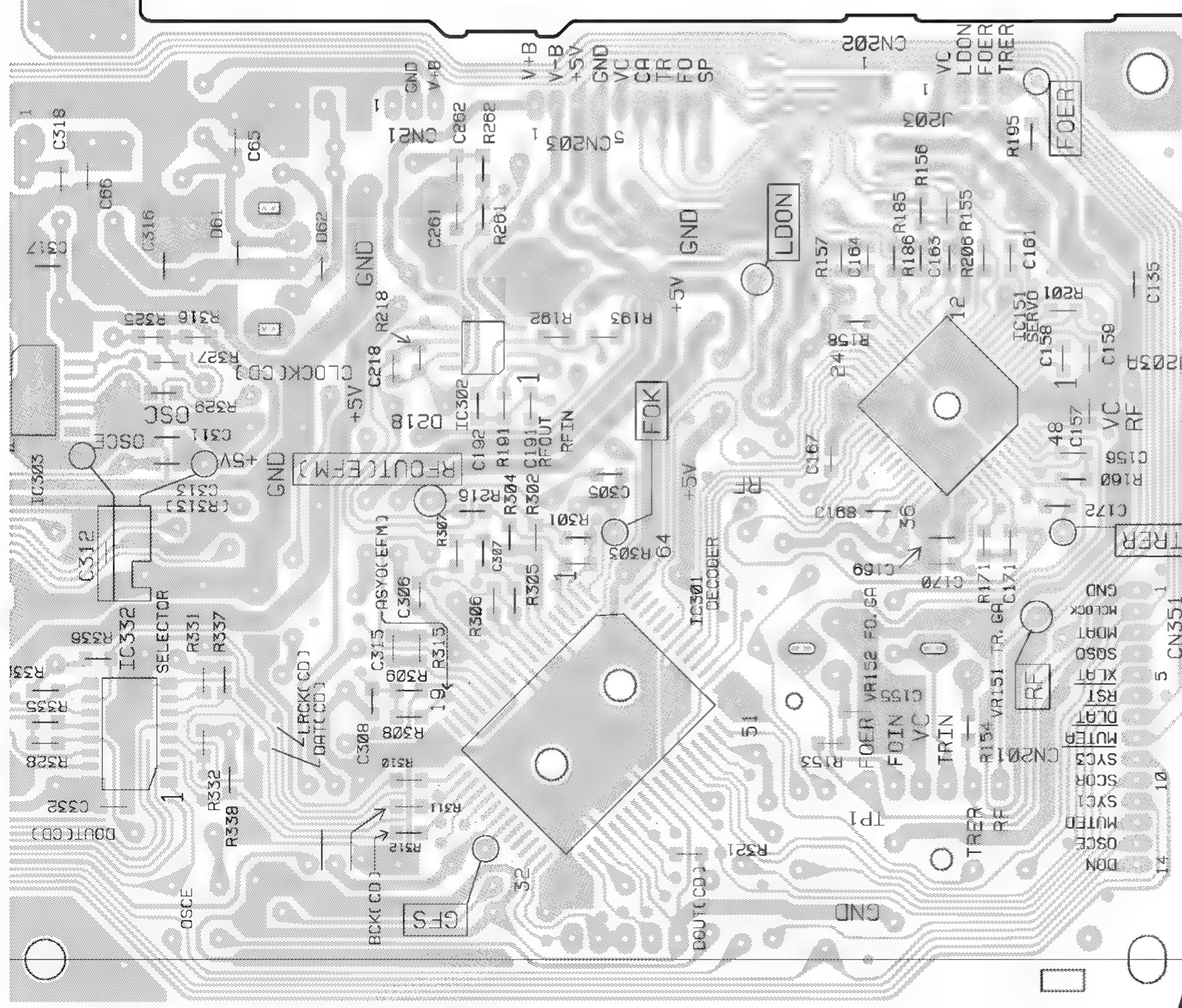
SIDE B



F PHONE BOARD ASSY



PNP1432-B



PNP1431-B

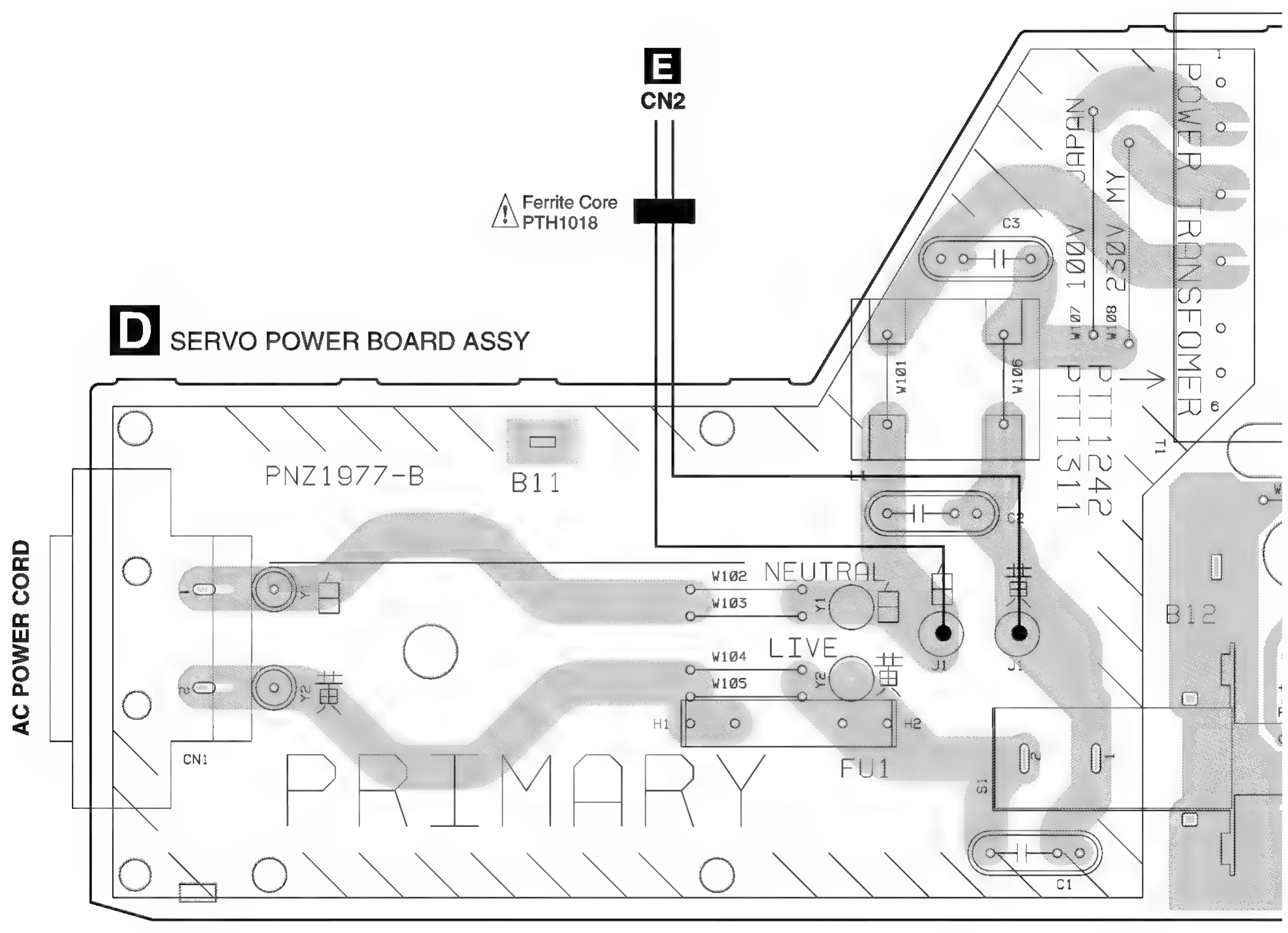
IC302

IC151

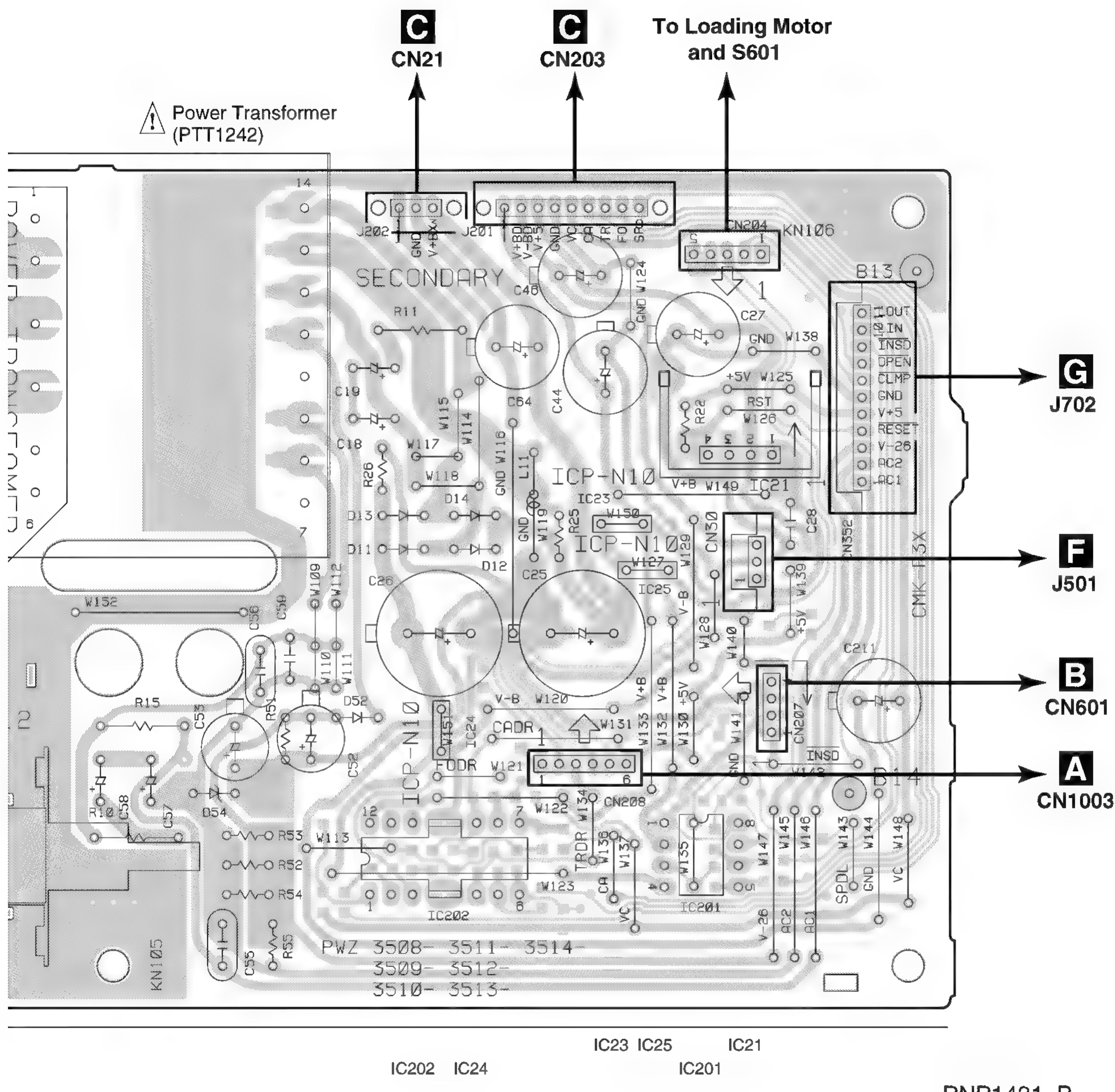
IC301
IC332

C F

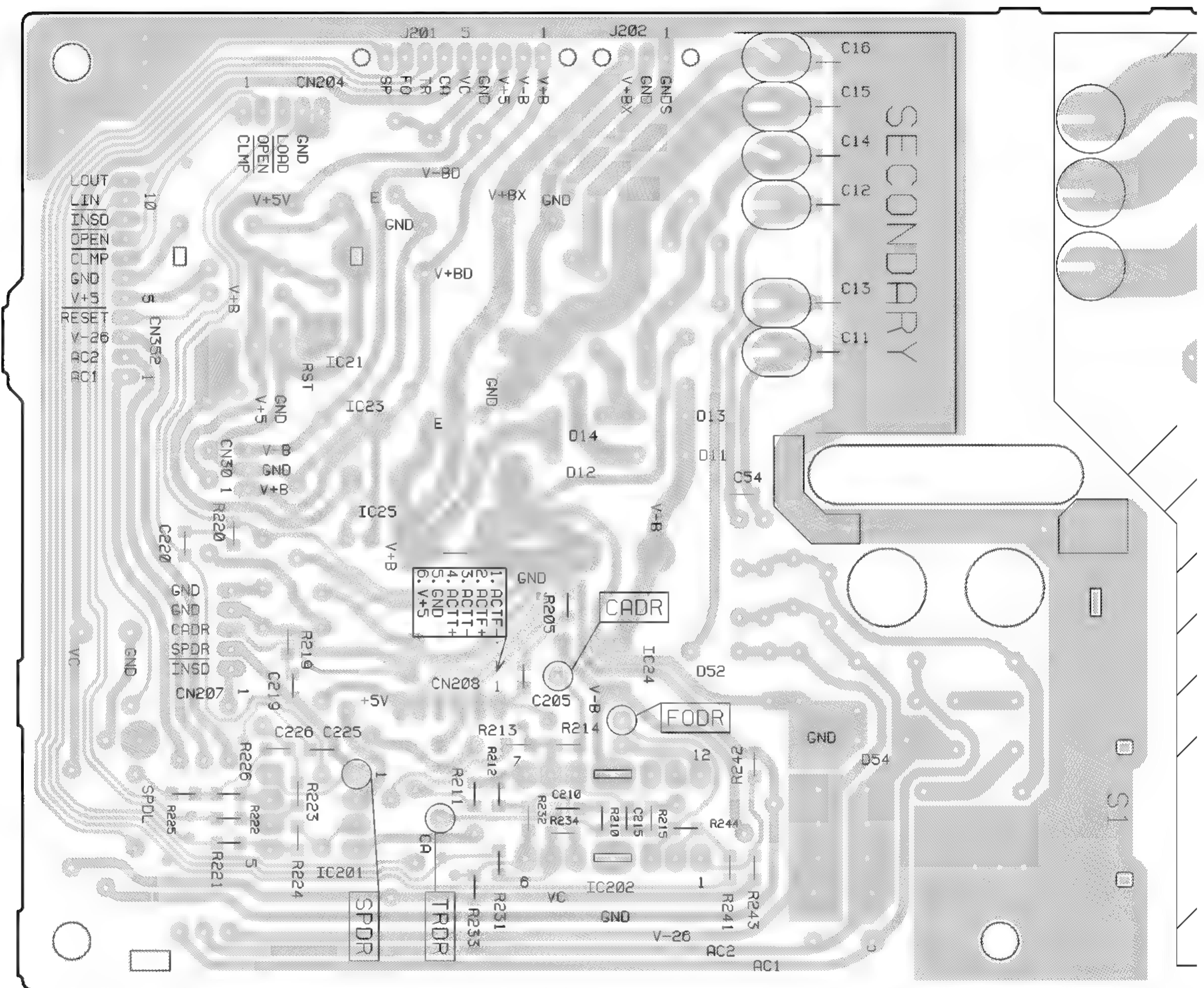
4.4 SERVO POWER BOARD ASSY

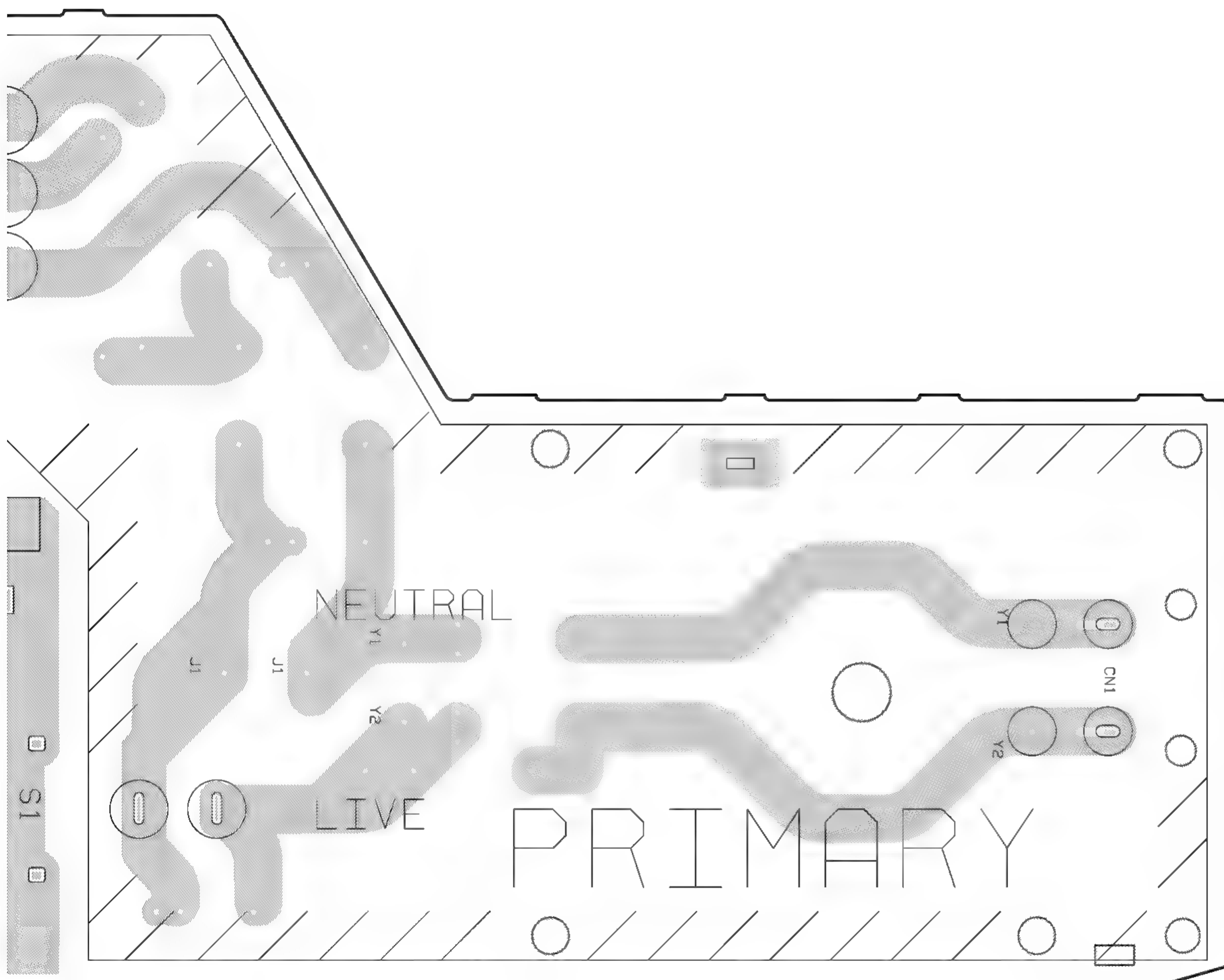


SIDE A



D SERVO POWER BOARD ASSY

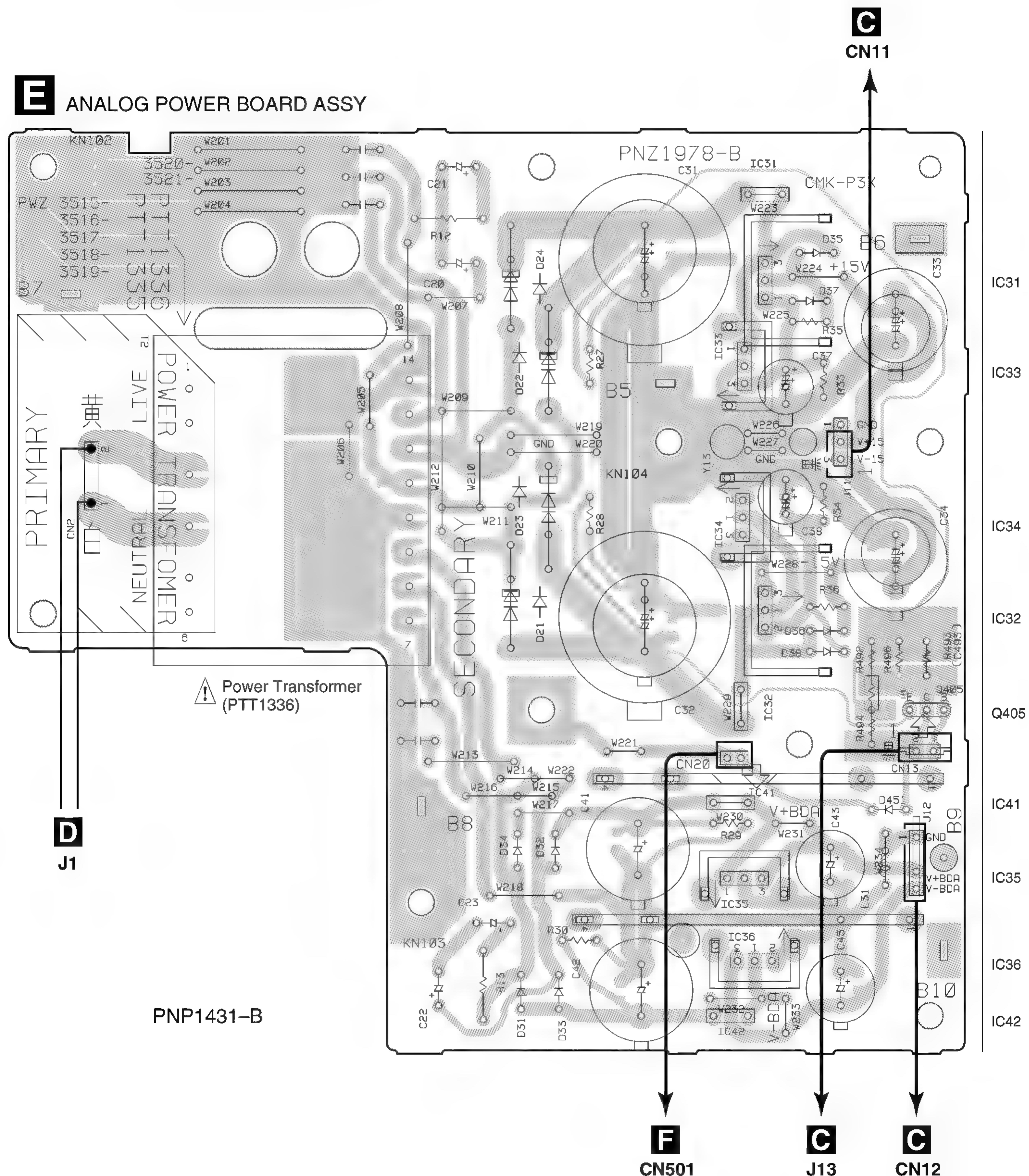


SIDE B

PNP1431-B

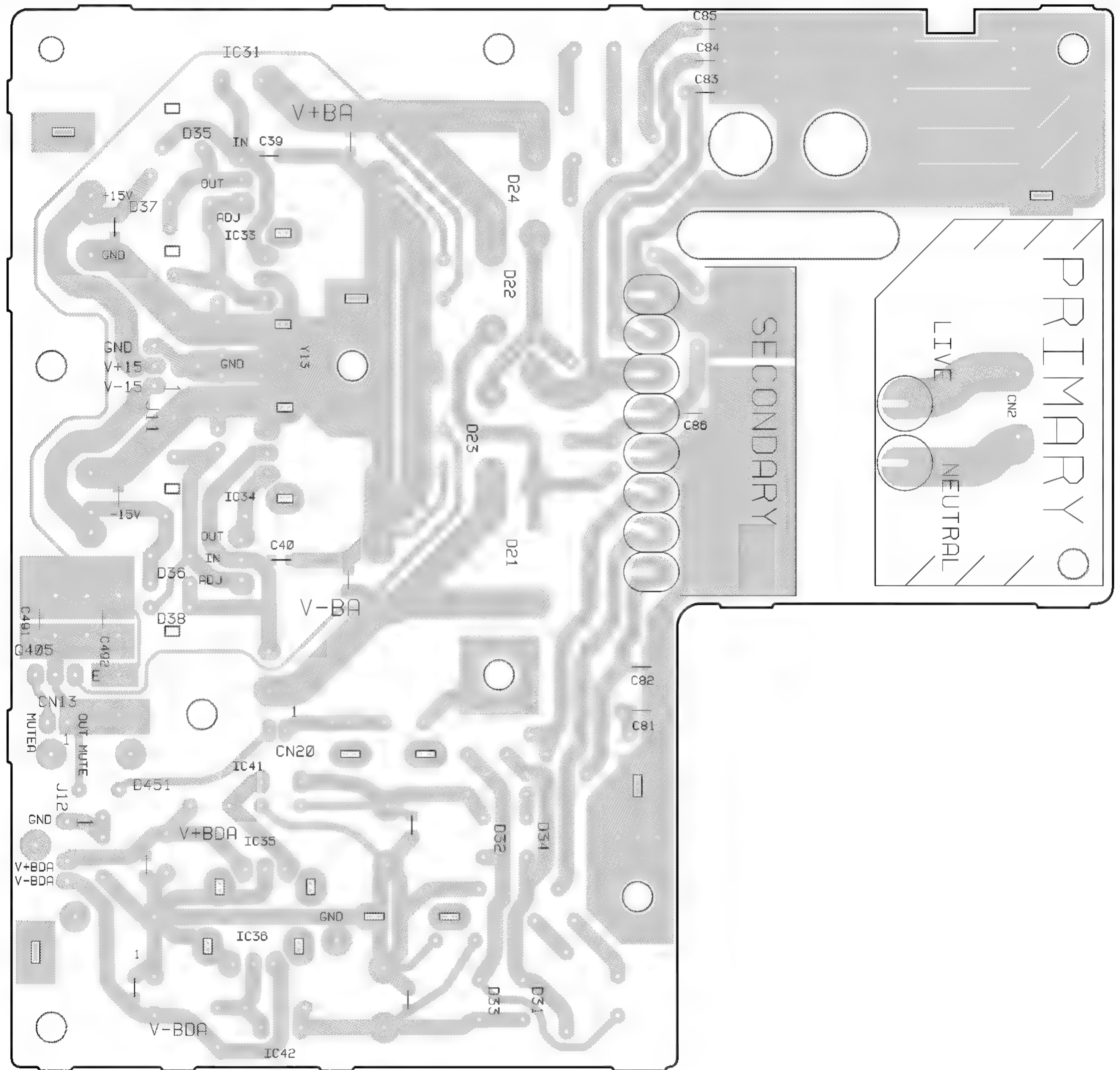
4.5 ANALOG POWER BOARD ASSY

SIDE A

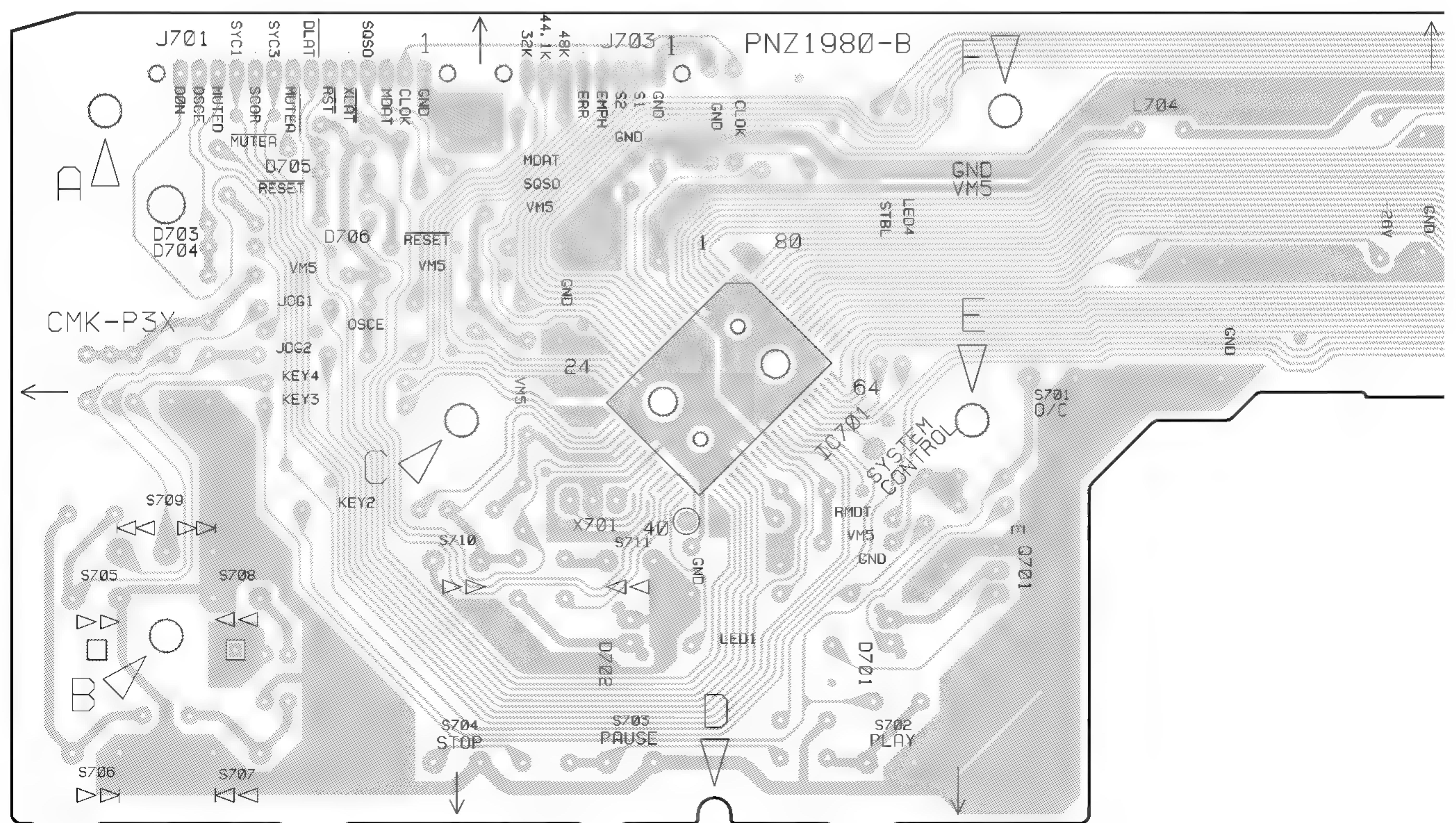
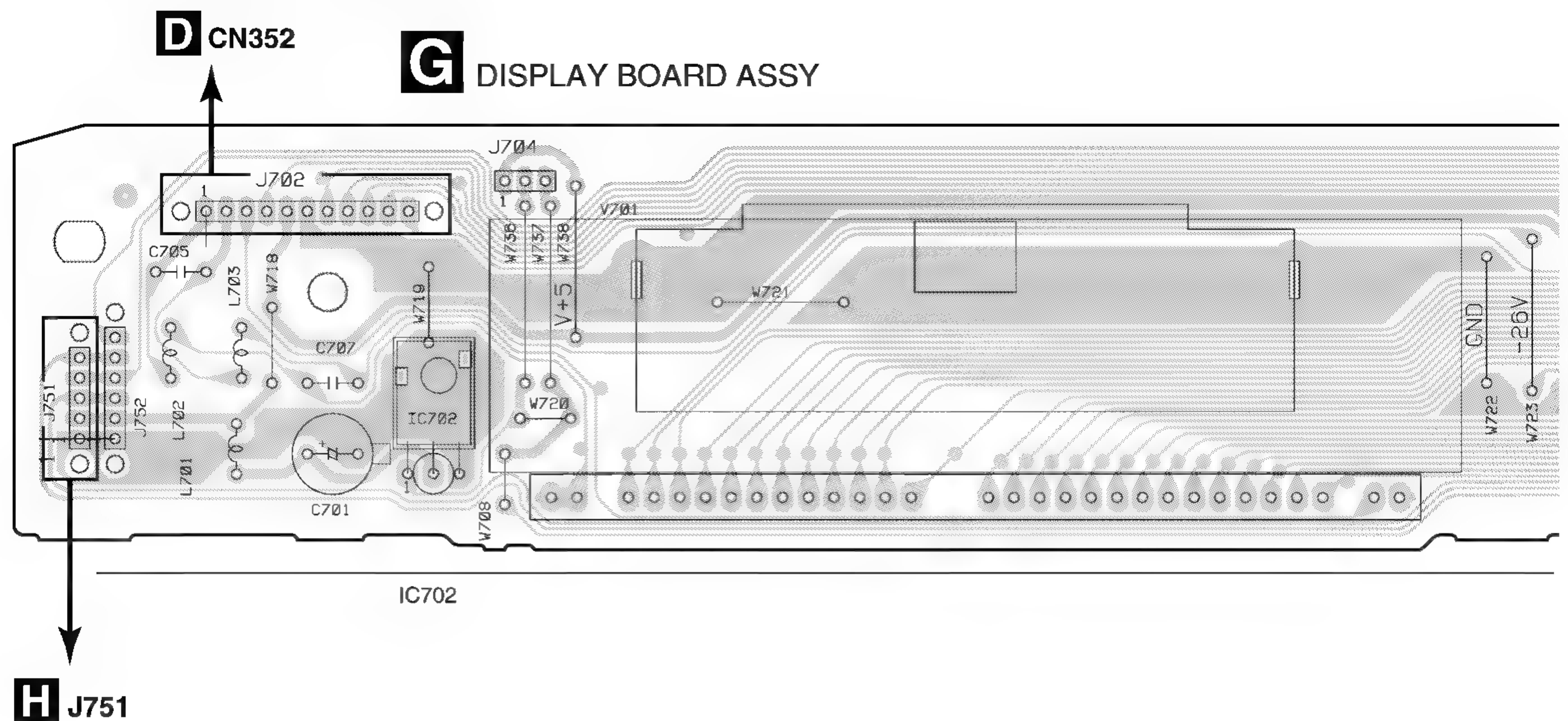


SIDE B

E ANALOG POWER BOARD ASSY



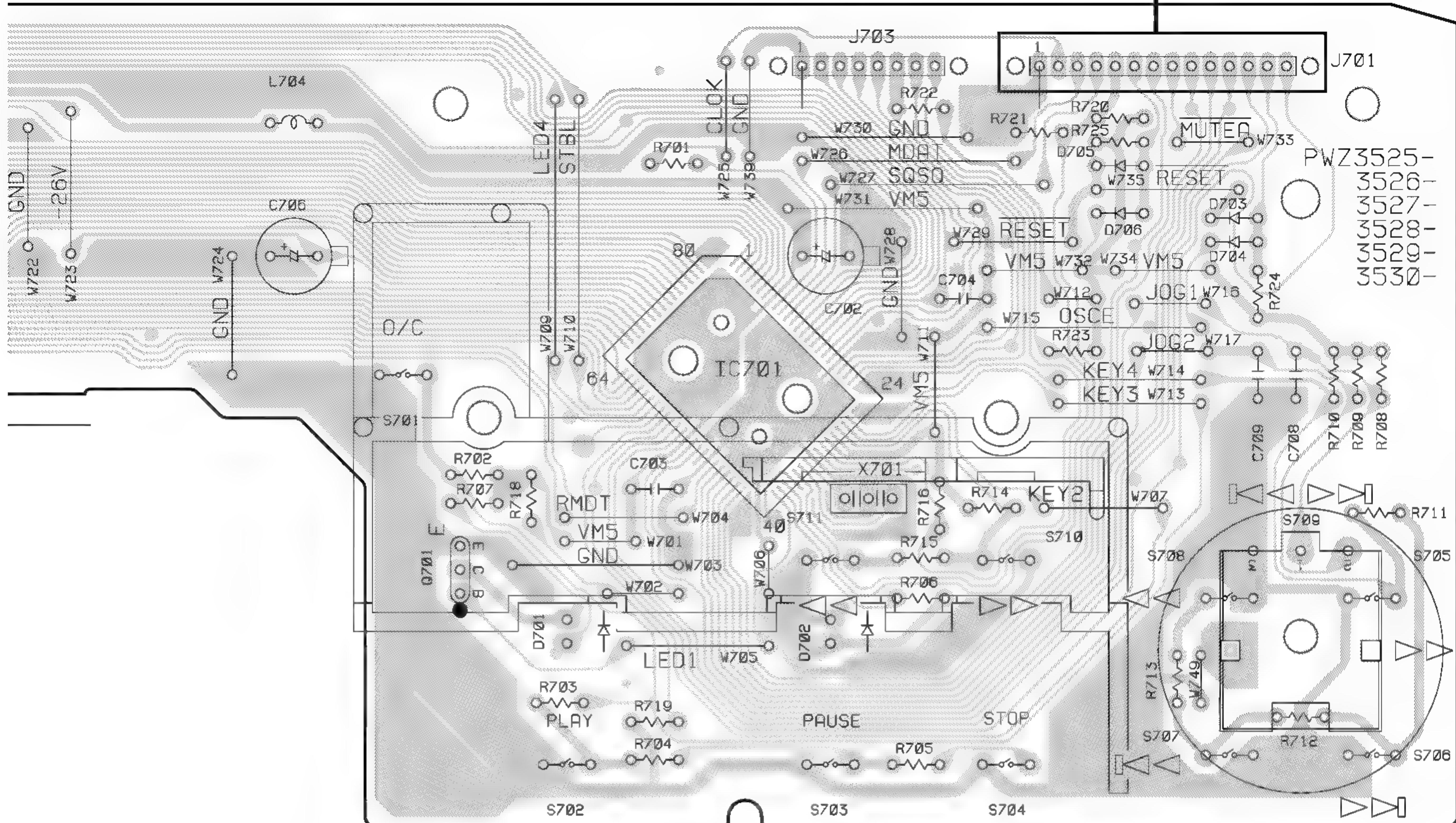
4.6 DISPLAY BOARD ASSY



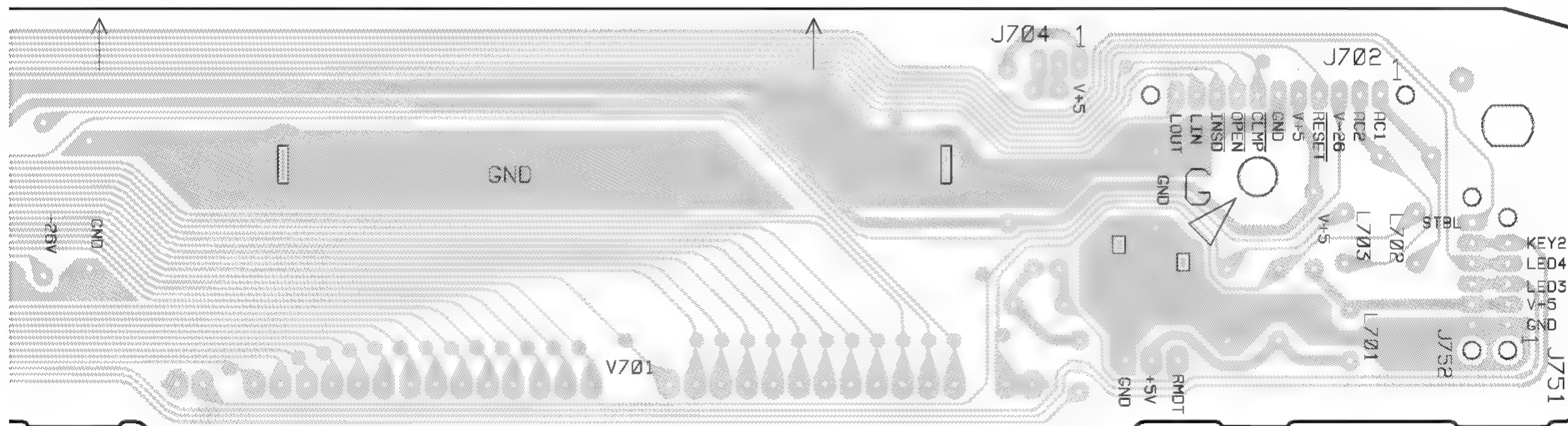
IC701

C CN351

SIDE A



SIDE B



PNP1432-B

G

5. PCB PARTS LIST

NOTES : • Parts marked by “ NSP ” are generally unavailable because they are not in our Master Spare Parts List.

- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω → 56 × 10¹ → 561 RD1/4PU 5 6 1 J

47k Ω → 47 × 10³ → 473 RD1/4PU 4 7 3 J

0.5 Ω → R50 RN2H R 5 0 K

1 Ω → 1R0 RSIP 1 R 0 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10³ → 5621 RN1/4PC 5 6 2 1 F

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
LIST OF PCB ASSEMBLIES					
NSP	MOTHER BOARD ASSY └ MAIN BOARD ASSY └ SERVO POWER BOARD ASSY └ ANALOG POWER BOARD ASSY	PWM2170 PWZ3500 PWZ3509 PWZ3516	C63 (10 µF/25V) C325 C324 C443-C446 C335	ACH7029 CCSQCH101J50 CCSQCH470J50 CEGA331M50 CEYA470M50	
NSP	SUB BOARD ASSY └ DISPLAY BOARD ASSY └ FUNCTION BOARD ASSY └ PHONE BOARD ASSY	PWX1520 PWZ3526 PWZ3532 PWZ3538	C152 (220 µF/25V) C160, C162 C133, C309 C497, C498 C346 (47 µF/10V)	PCH1128 CEZA4R7M50 CEZAR47M50 CFTXA103J50 RCH1139	
NSP	LOADING MECHANISM ASSY TT	PWX1598	C399	CGCYX103K25	
NSP	TRAY ASSY TT	PXA1599	C349	CKSQYB102K50	
NSP	SERVO MECHANISM ASSY TT └ MECHANISM BOARD ASSY └ CONNECTION BOARD ASSY	PXA1600 PWX1192 PWX1525	C164, C167, C169 C191, C192, C308, C311 C317-C318, C344, C347	CKSQYB103K50 CKSQYB103K50 CKSQYB103K50	
C MAIN BOARD ASSY					
SEMICONDUCTORS					
	IC151 IC301 IC61  IC44 IC403, IC404	CXA1372BQ CXD2507AQ LM317T LM337T NJM2114D-D	C47-C49, C66 C157-C159, C161, C163, C321 C334, C336, C342, C65 C306 C171	CKSQYB103K50 CKSQYB104K25 CKSQYB104K25 CKSQYB152K50 CKSQYB182K50	
	IC302 IC43, IC45, IC60 IC401, IC402 IC341 IC342	NJM4565M NJM7805FA PCM1702P-J PD0236AD PD7009B	C315 C218 C156, C168, C170 C172 C307, C323, C339	CKSQYB221K50 CKSQYB272K50 CKSQYB333K50 CKSQYB472K50 CKSQYB473K50	
	IC303 IC331 Q391 Q403, Q404 D497, D498	TC74AC00F TC74HC00AF 2SC1740S 2SC3068 1SS254	C155 C437, C438 C435, C436 C441, C442 C432, C433 (100 µF/50V)	CKSQYB561K50 CQMZA471J50 CQMZA562J50 CQMXA102J2A PCH1088	
	D346-D349, D395-D397 D41, D42 D218	1SS355 1SS355 MTZJ6.8B	C345, C404, C60 (1000 µF/16V) C131, C200, C201, C301, C303 (220 µF/25V) C322, C333 (220 µF/25V) C429, C430 (220pF/50V)	PCH1122 PCH1128 RCE1032	
COILS AND FILTERS					
	L397 (10 µH) L395, L396 L321, L332 L301, L302, L305 L334 (Coil) L352 (Ferrite beads) L303, L304 (0.15 mH)	LAU100J LAU1R0J LFA151J LFA1R0J PTL1003 PTH1016 RTF1068	C132, C29, C302, C310, C341 (47 µF/10V) C348, C403, C405, C406 (47 µF/10V) C411-C418, C423-C428, C68 (47 µF/10V)	RCH1139 RCH1139 RCH1139	
RESISTORS					
	L310, L401-L404 (Noise filter)	RTF1167	R497, R498 R44, R62 R451, R452 R344 R42, R63	RD1/4PU102J RD1/4PU221J RD1/4PU223J RD1/4PU331J RD1/4PU681J	

Mark No.	Description	Parts No.
R37-R40		RDR1/2PM101J
R429, R430		RDR1/2PM302J
R447, R448		RDR1/2PM471J
R437-R440		RDR1/4PM122J
R443, R444		RDR1/4PM273J
VR151, VR152 (22 kΩ)		RCP1046
Other Resistors		RS1/10S□□□J
OTHERS		
CN21	3P JUMPER CONNECTOR	52147-0310
CN203	9P JUMPER CONNECTOR	52147-0910
CN351	14PJUMPER CONNECTOR	52147-1410
CN11	2P TOP POST	B2B-EH
CN12	3P TOP POST	B3B-EH
CN401	CONNECTOR POST	B3B-PH-K-S
JA301	OPTICAL LINK OUT	GP1F32T
J203	CONNECTOR ASSY 6P	PDE1286
JA331	1P PIN JACK	PKB1028
JA402	1P PIN JACK	PKB1030
JA401	1P PIN JACK	PKB1031
JA393	MINI JACK	PKN1005
X301	(16.9 MHz)	PSS1022
CN201	CONNECTOR 6P	RKP-533
J13	CONNECTOR ASSY 2P	RKP1763
	PCB BINDER	VEF1040
KN107-KN110	EARTH METAL FITTING	VNF1084
J401	EARTH LEAD	PDF1169

D SERVO POWER BOARD ASSY

SEMICONDUCTORS

⚠ IC23, IC24	ICP-N10
⚠ IC201	LA6517
⚠ IC202	LA6520
⚠ IC21	PQ05RR12
⚠ D54	MTZJ18B
⚠ D11-D14, D52	S5688G

SWITCHES AND RELAYS

⚠ S1 POWER SWITCH	RSA1004
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COILS AND FILTERS

L11 (Ferrite beads)	PTH1014
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CAPACITORS

⚠ C1 (10000 pF/250V)	ACG7020
C18, C19, C57, C58	CEZA1R0M50
C28	CFTYA104J50
C11-C16, C205, C210, C215	CKSQYB103K50
C219, C220	CKSQYB103K50
C59	CFTXA104J50
C56	CQMXA104J2A
C226	CKSQYB122K50
C225	CKSQYB392K50
C25, C26 (4700 μF/16V)	PCH1119
C27 (1000 μF/16)	PCH1122
C44, C46, C52, C53, C64 (100 μF/50V)	PCH1126
C211 (47 μF/10)	RCH1139

Mark No.	Description	Parts No.
RESISTORS		
R15		RD1/2PM3R3J
R22, R51		RD1/4PU103J
R52-R54		RD1/4PU152J
R10, R11		RD1/4PU8R2J
Other Resistors		RS1/10S□□□J
OTHERS		
CN207	MT 4P CONNECTOR	173981-4
CN204	MT 5P CONNECTOR	173981-5
	3P CABLE HOLDER	51048-0300
	9P CABLE HOLDER	51048-0900
CN30	3P JUMPER CONNECTOR	52147-0310
⚠ CN352	11PJUMPER CONNECTOR	52147-1110
⚠ CN1	AC INLET	AKP7005
⚠ CN208	KR CONNECTOR	B6B-PH-K-S
J202	WIRE ASSY 3P	D20PDY0325E
J201	WIRE ASSY 9P	D20PDY0925E
⚠ J1	CONNECTOR ASSY 2P	PDE1280
	CAPACITOR COVER	REC-150
	PCB BINDER	VEF1008
KN105, KN106	EARTH METAL FITTING	VNF1084

E ANALOG POWER BOARD ASSY

SEMICONDUCTORS

⚠ IC33	NJM7815FA
⚠ IC34	NJM7915FA
Q405	DTC124ES
⚠ D21-D24	10DF2FA9
D451	1SS254
⚠ D31-D34	S5688G

COILS AND FILTERS

L31 (Noise filter)	RTF1167
--------------------	---------

CAPACITORS

C20-C23	CEZA1R0M50
C81-C85	CKSQYB103K50
C39, C40	CKSQYB104K25
C493	CFTXA104J50
C33, C34 (3300 μF/25V)	PCH1125
C41, C42 (4700 μF/35V)	RCH1089
C31, C32 (4700 μF/50V)	RCH1104

RESISTORS

R492-R494, R496	RDR1/2PM682J
Other Resistors	RD1/4PU□□□J

OTHERS

CN13	2P TOP POST	B2B-EH
CN20	CONNECTOR POST	B2B-PH-K-S
⚠ CN2	2P VH CONNECTOR	B2P3-VH
J12	CONNECTOR ASSY 3P	RKP1762
J11	CONNECTOR ASSY 2P	RKP1763
KN102-KN104	EARTH METAL FITTING	VNF1084

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
C DISPLAY BOARD ASSY					
SEMICONDUCTORS					
IC701		PD4899B	CAPACITORS		CEZA2R2M50
Q701		DTC124ES	C513, C514		CGCYX103K25
D703-D706		1SS254	C507, C508		
D702		SLR-342DCT31	RESISTORS		
D701		SLR-342MCT31	VR501 (20 kΩ-B)		RCV1043
COILS AND FILTERS			Other Resistors		RD1/4PUNNNJ
L701-L704		LFA1R0J	OTHERS		
SWITCHES AND RELAYS			3P CABLE HOLDER		51048-0300
S709		ASX7008	CN501 5P TOP POST		B5B-EH
S701-S704, S710, S711		VSG1009	JA501 JACK		RKN1002
CAPACITORS			B MECHANISM BOARD ASSY		
C706		CEAL220M35	SWITCHES AND RELAYS		
C701		CEAL470M16	S610		DSG1016
C703, C705, C707-C709		CFTXA104J50	OTHERS		
C704		CGCYX103K25	CN610 MT CONNECTOR 4P		173979-4
C702 (47 µF/10V)		RCH1139			
RESISTORS					
All Resistors		RD1/4PUIIIU	A CONNECTION BOARD ASSY		
OTHERS			OTHERS		
5P CABLE HOLDER		51048-0500	CN1001 FPC CONNECTOR 12P		12FMZ-AST
11P CABLE HOLDER		51048-1100	CN1002 6P SIDE POST		PKN1017
14P CABLE HOLDER		51048-1400	PC BOARD		PNP1436
REMOTE RECEIVER UNIT		GP1U27X	CN1003 6P SIDE POST		BS6P-SHF-1AA
V701	FL INDICATOR TUBE	PEL1094			
X701	(4.19 MHz)	VSS1028			
J701	WIRE ASSY 14P	D20PDY1420E			
J702	WIRE ASSY 11P	D20PDY1130G			

H FUNCTION BOARD ASSY

SEMICONDUCTORS	
Q751, Q752	DTC124ES
D752	SLR-342DCT31
D751	SLR-342VCT31
SWITCHES AND RELAYS	
S751-S754	VSG1009
RESISTORS	
All Resistors	RD1/4PUIIIU
OTHERS	
5P CABLE HOLDER	51048-0500

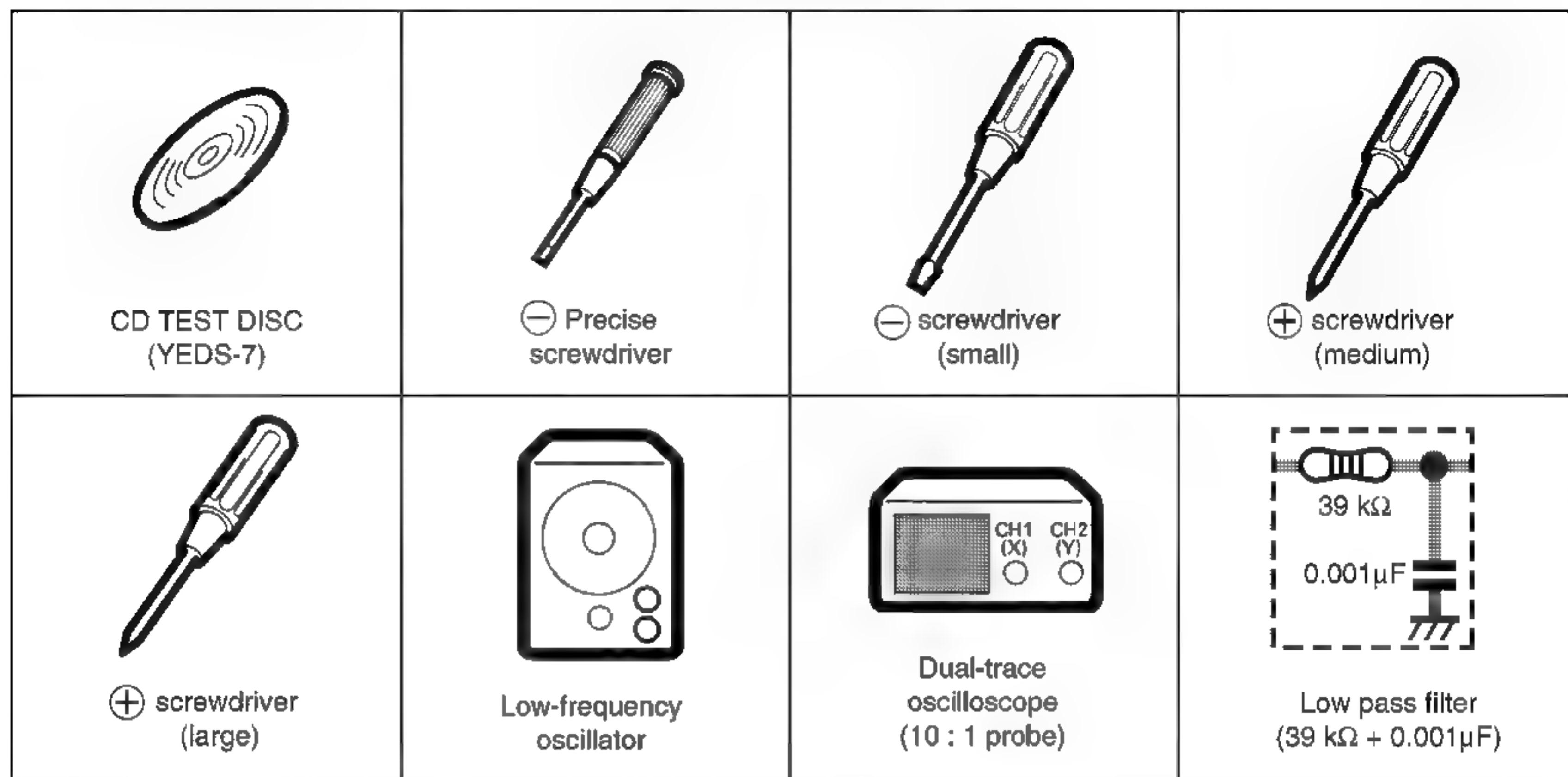
F PHONE BOARD ASSY

SEMICONDUCTORS	
IC501	M5216P
Q501, Q502	2SC3068
COILS AND FILTERS	
L501, L502	LAU1R0J

6. ADJUSTMENT

6.1 PREPARATIONS (準備)

6.1.1 Jigs and Measuring Instruments (使用測定器/治工具類)



6.1.2 Necessary Adjustment Points (調整に必要な項目)

When (このような時)

Adjustment points

Exchange

PICKUP
(ピックアップを交換した時)

1.2.3.4.5.6. → Page 39~41

Exchange

MAIN BOARD ASSY
(MAIN BOARD ASSYを交換した時)

1.2.3.4.5.6. → Page 39~41

Exchange

SERVO MECH ASSY
(サーボメカASSYを交換した時)

1.2.3.4.5.6. → Page 39~41

Exchange

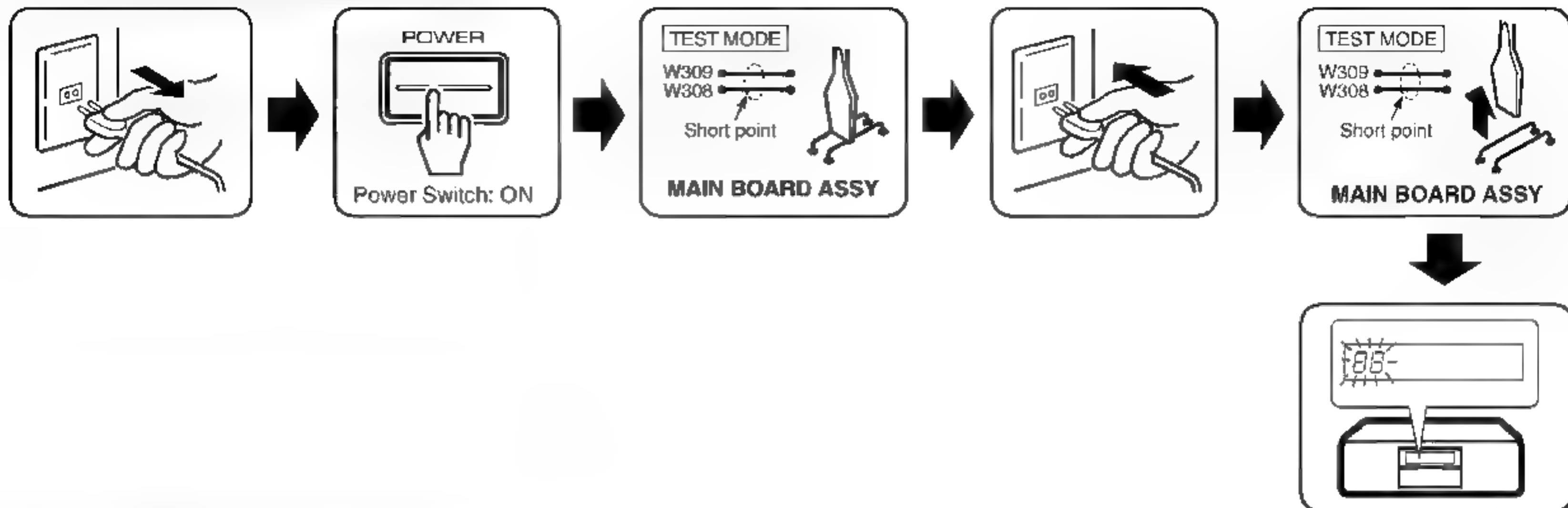
SPINDLE MOTOR
(スピンドルモーターを交換した時)

ADJ → Page 9

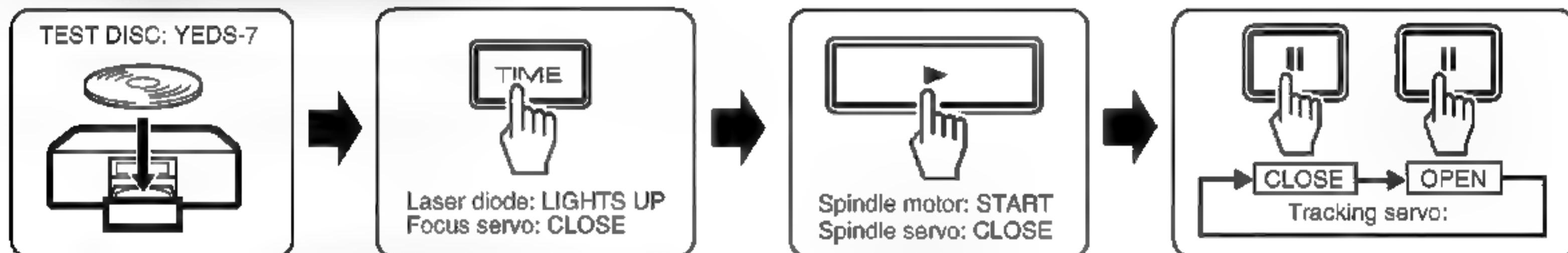
6.2 ADJUSTMENT (調整)

6.2.1 How to Start/Cancel Test Mode (テストモードの設定／解除)

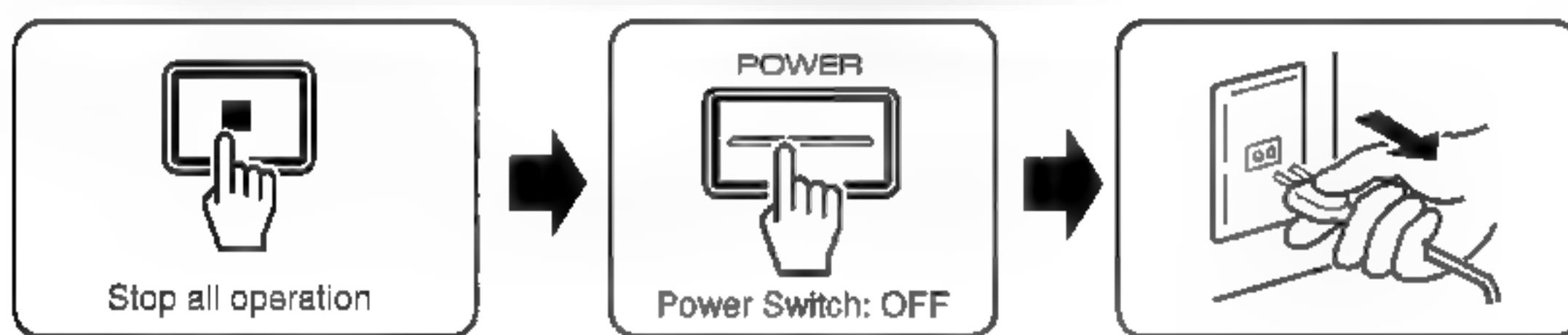
TEST MODE : ON



TEST MODE : PLAY

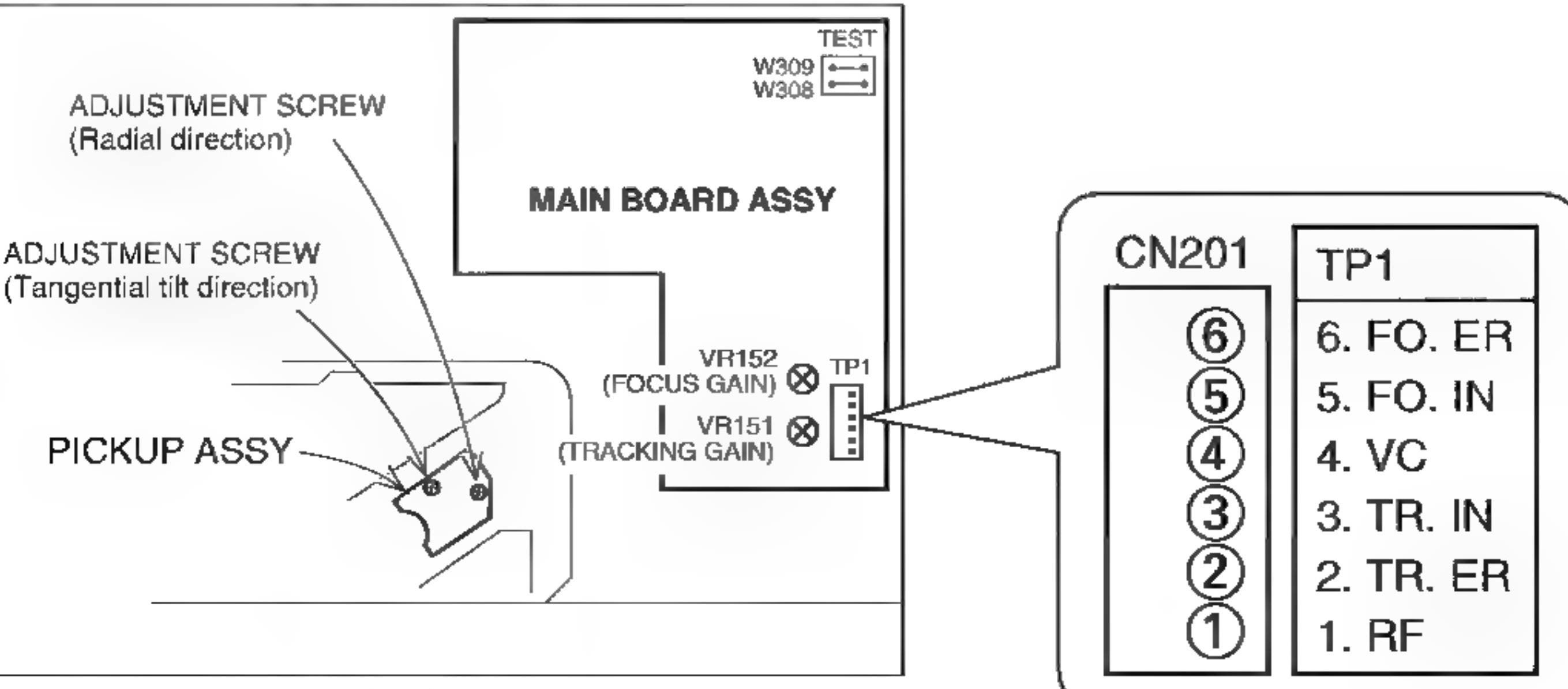


TEST MODE : STOP → CANCEL



6.2.2 Adjustment Location (テストポイントと調整用VRの位置)

(REAR)

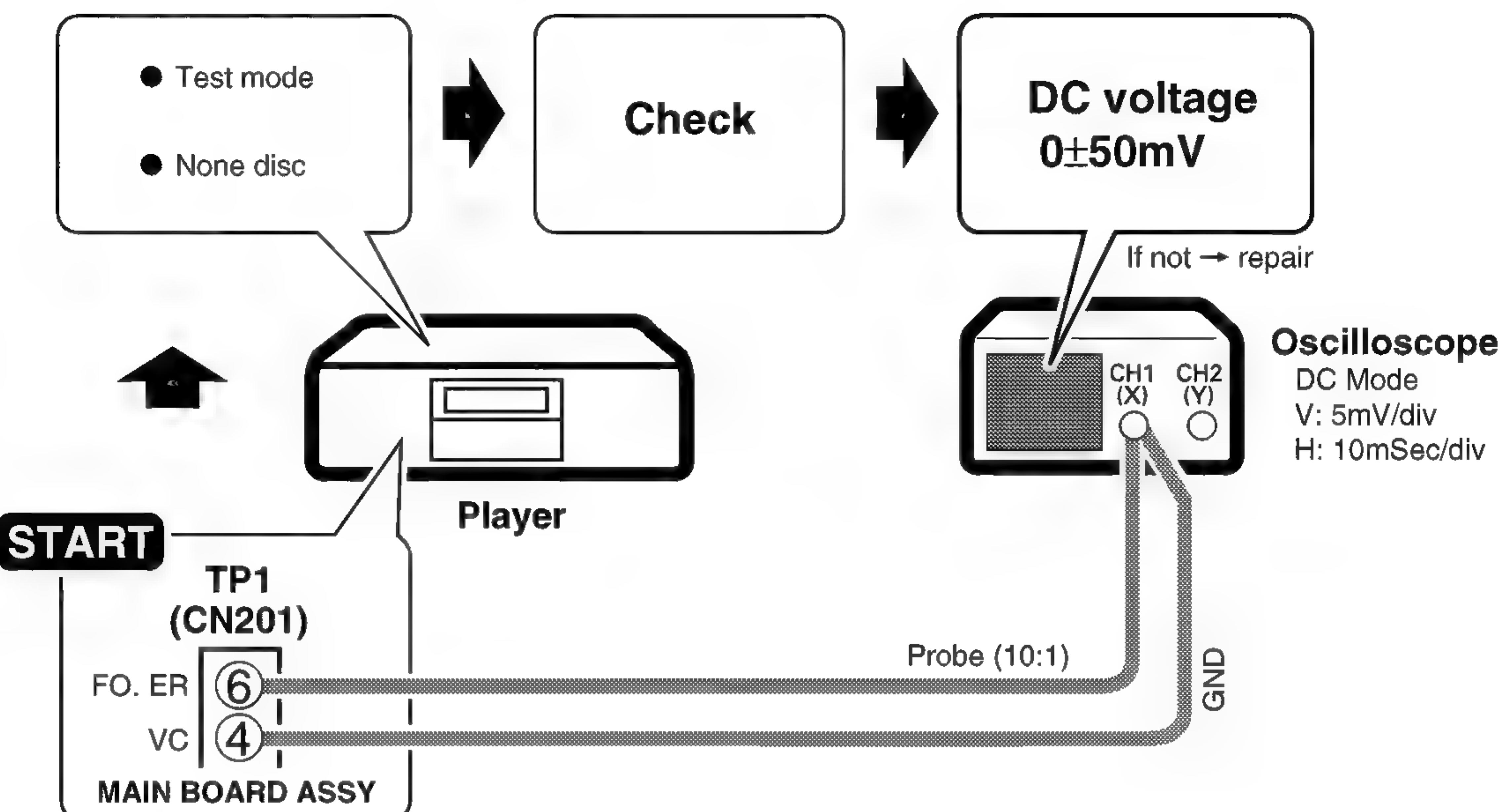


(FRONT)

6.2.3 Check and Adjustment (確認、調整)

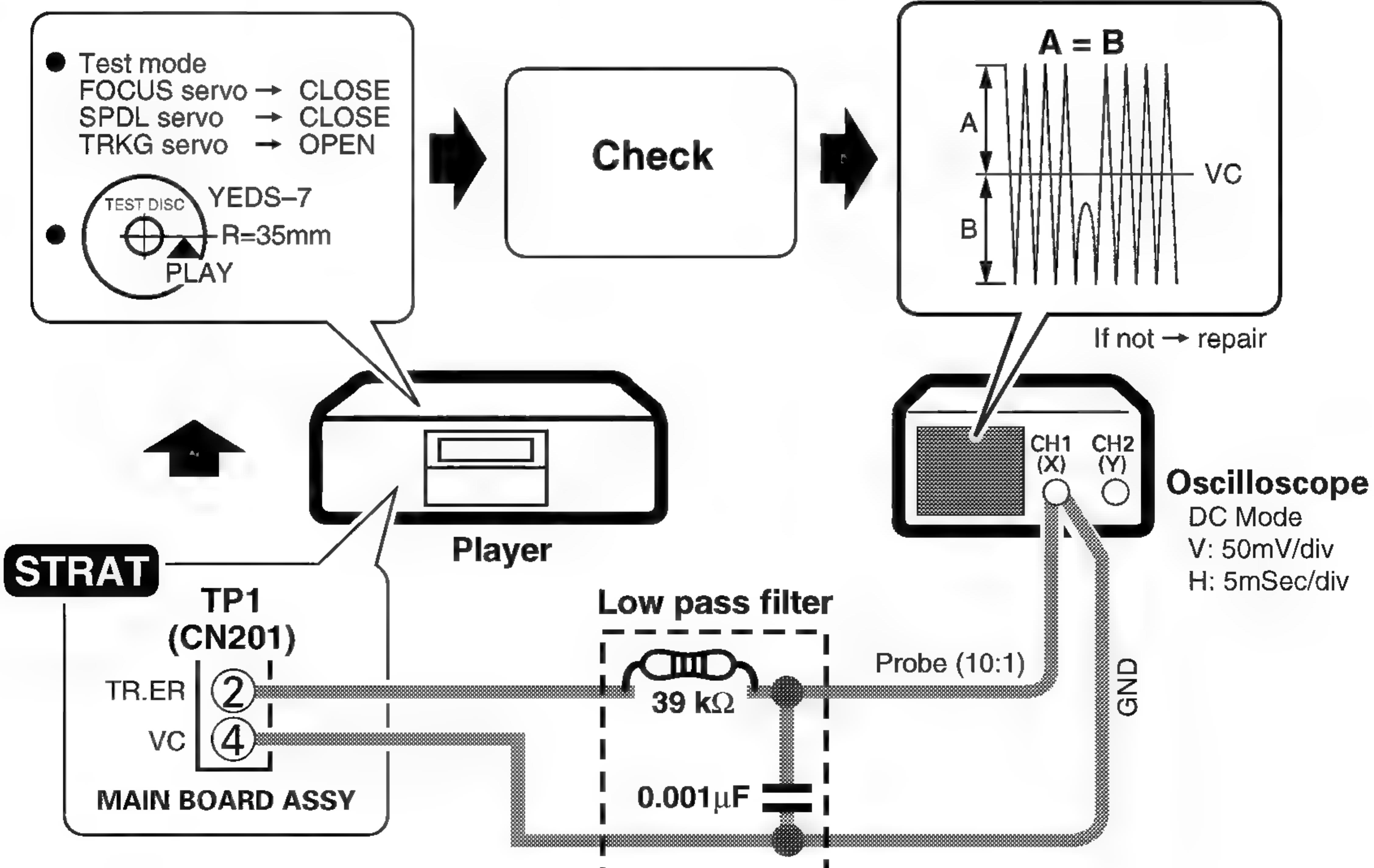
1. Focus Offset Check

(フォーカスオフセット確認)



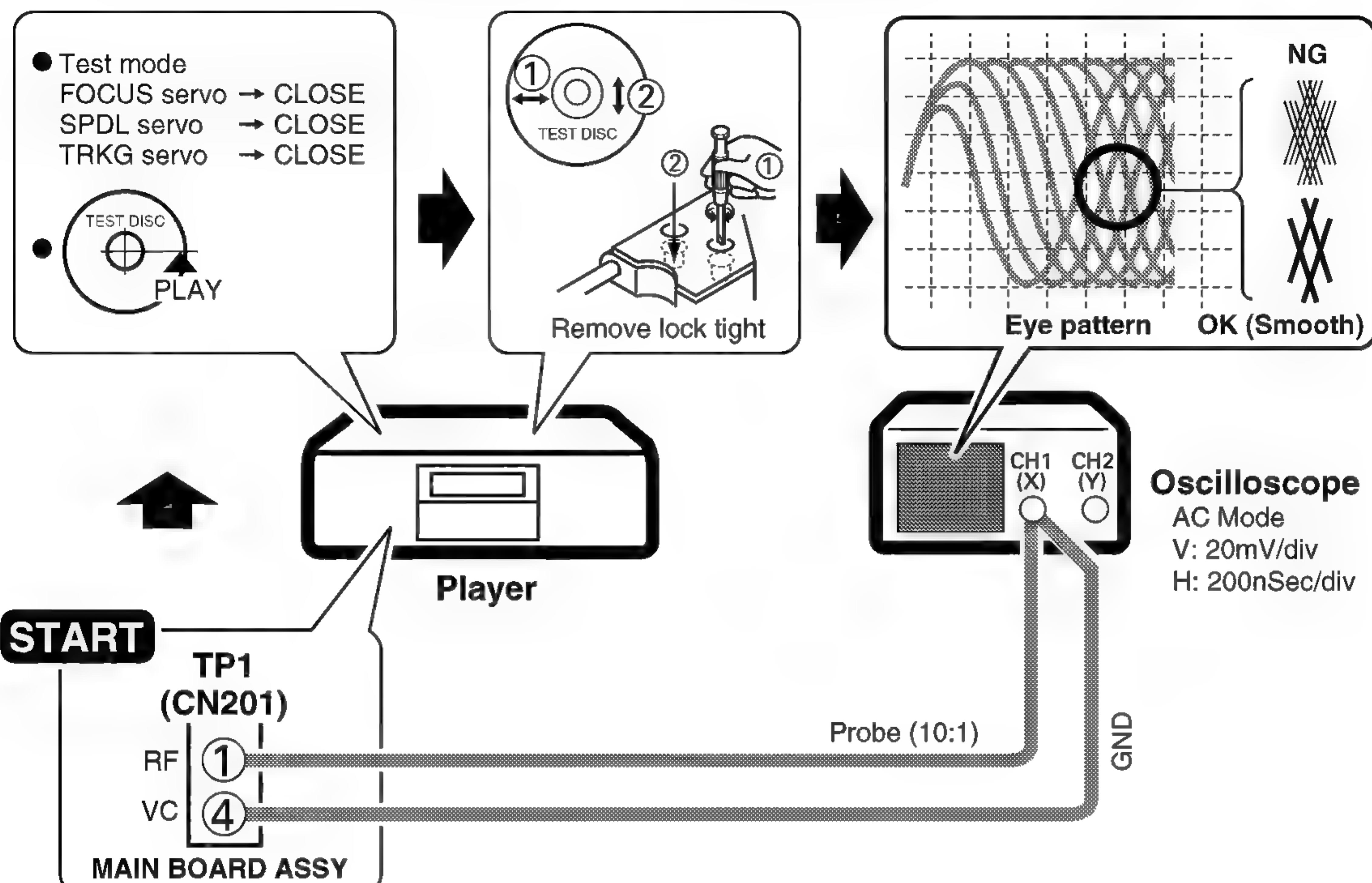
2. Tracking Error Balance Check

(トラッキングエラーバランス確認)



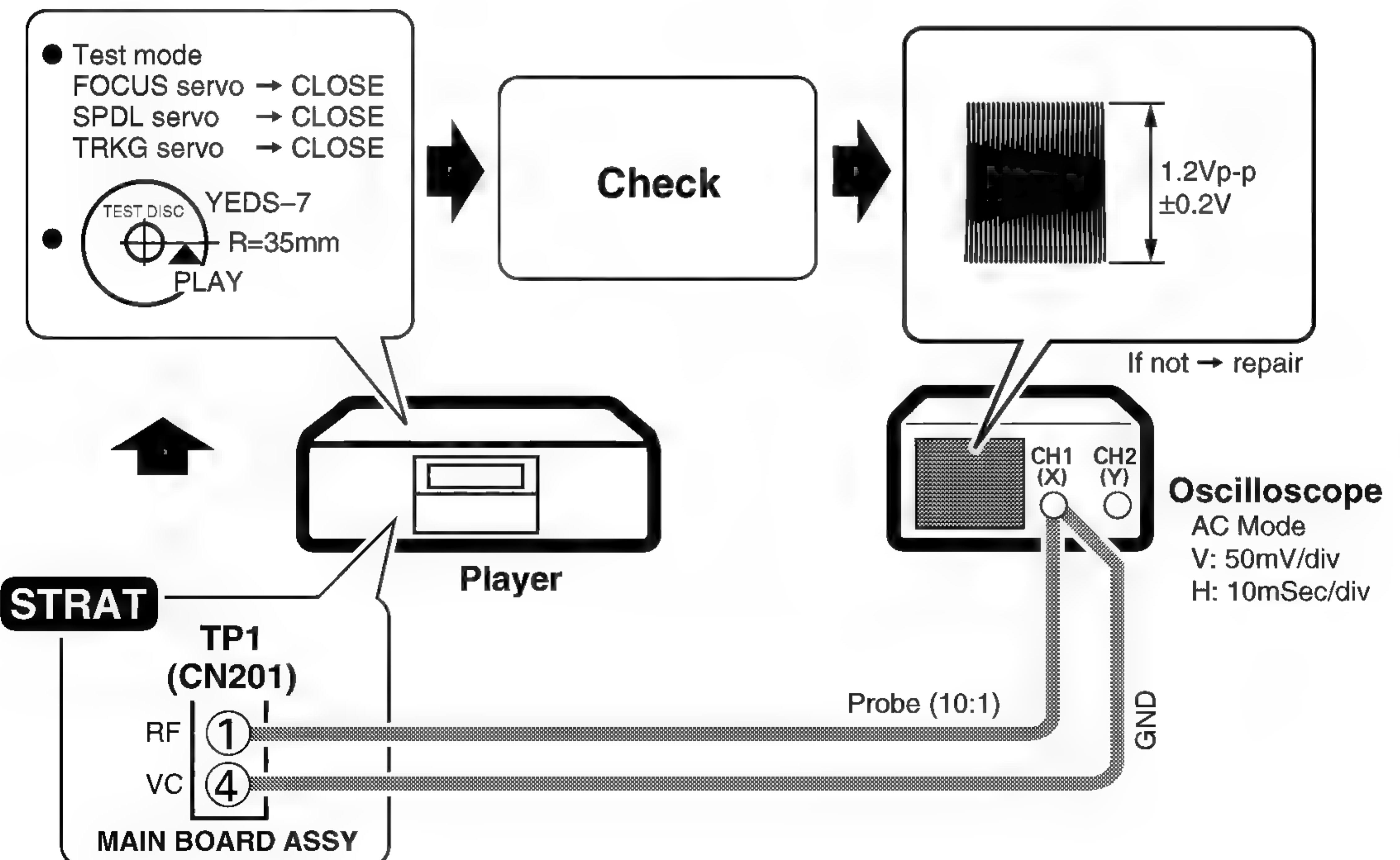
3. Pickup ①Radial/ ②Tangential Direction Tilt Adjustment

(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)



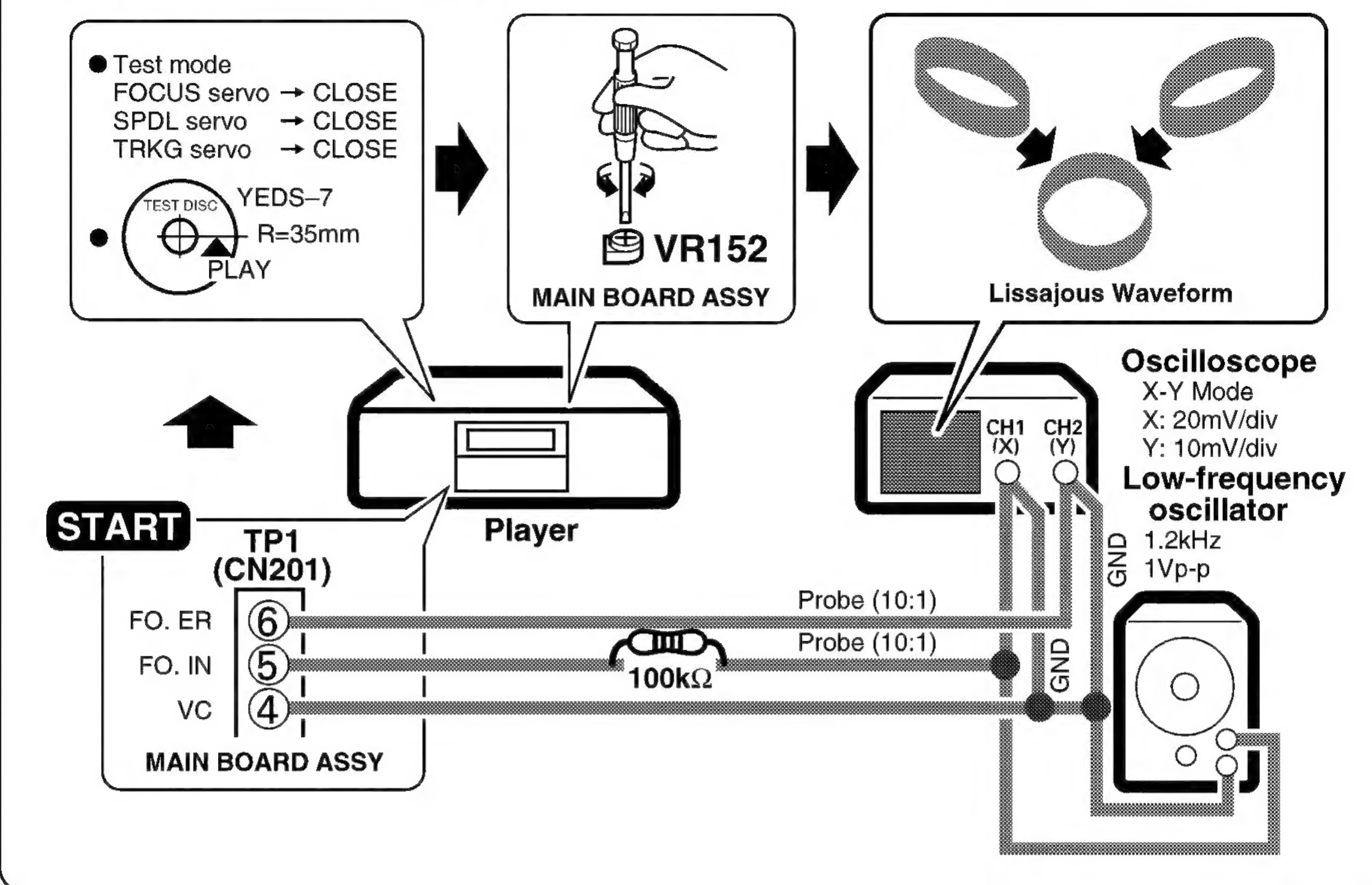
4. RF Level Check

(RFレベル確認)



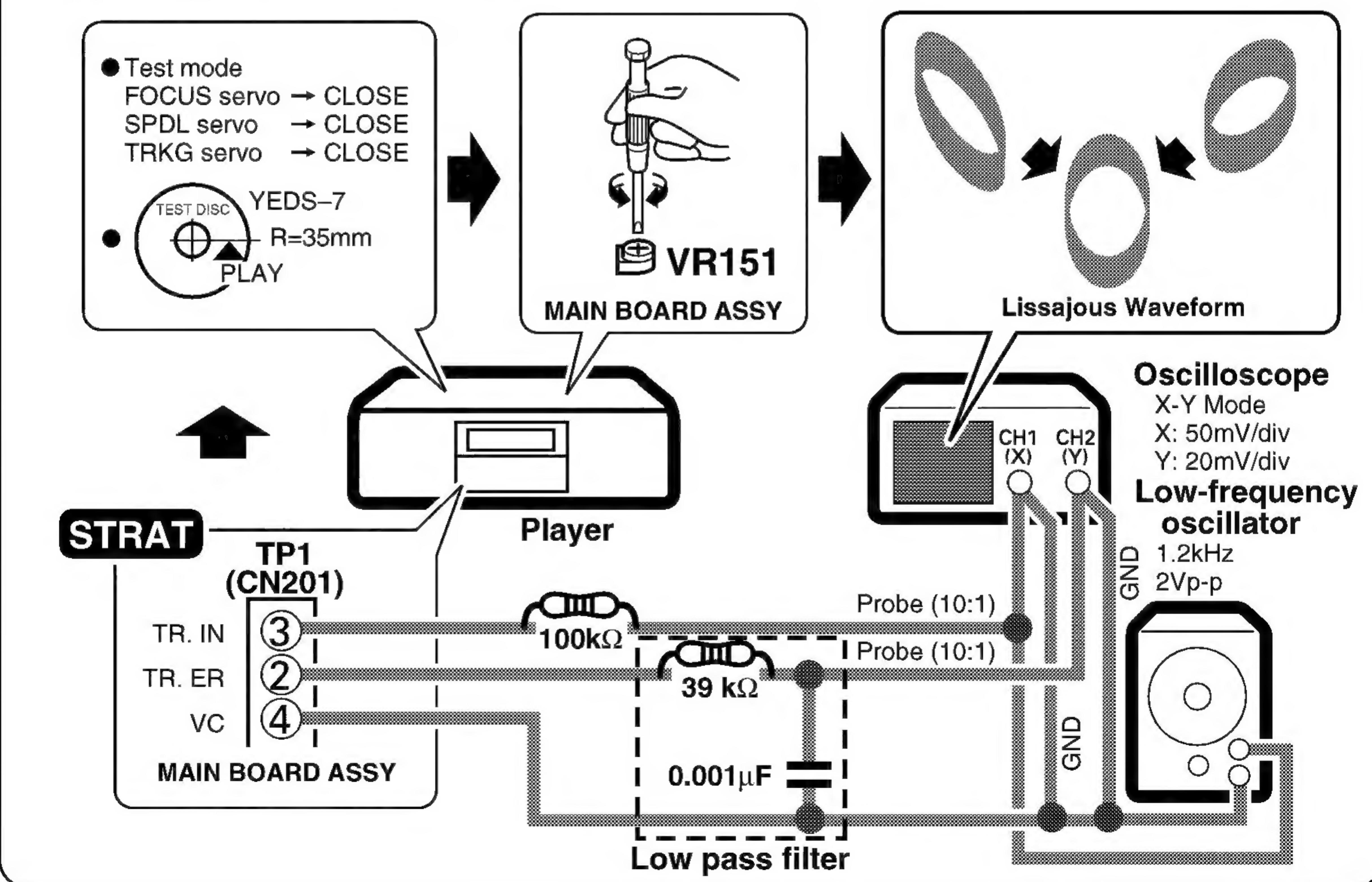
5. Focus Servo Loop Gain Adjustment

(フォーカスサーボループゲイン調整)



6. Tracking Servo Loop Gain Adjustment

(トラッキングサーボループゲイン調整)



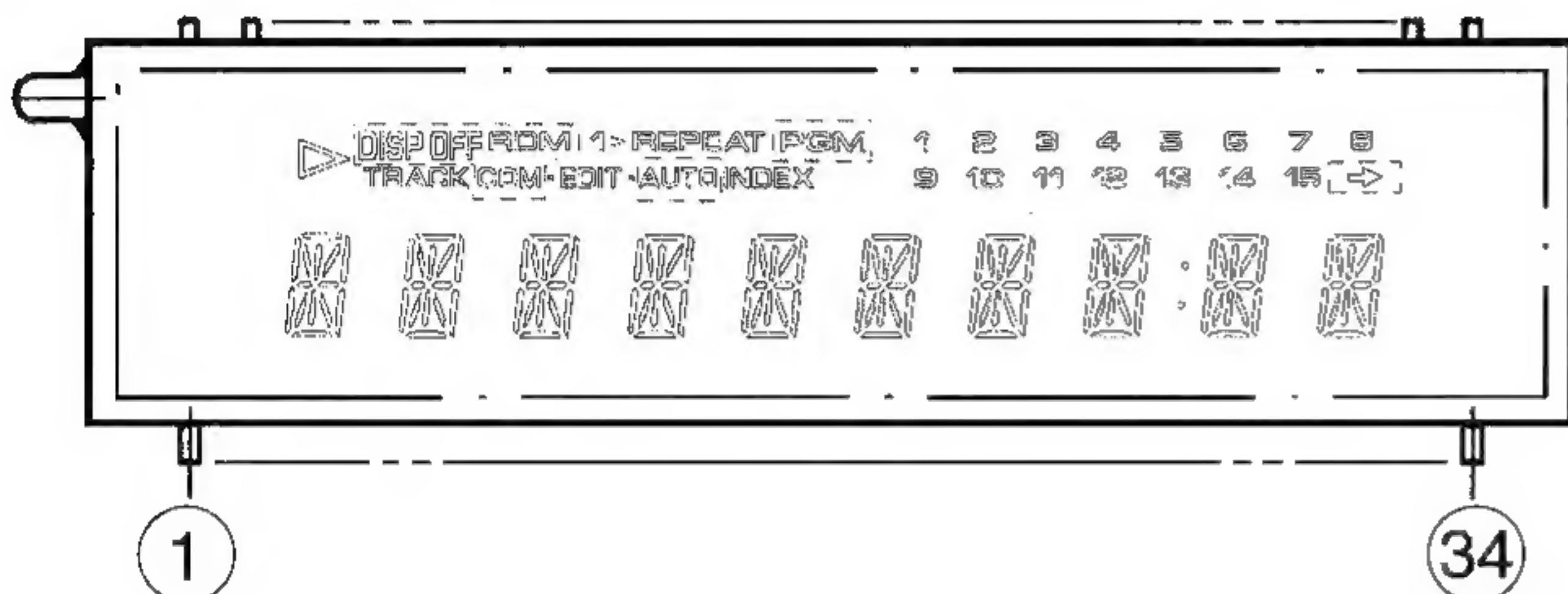
7. GENERAL INFORMATION

7.1 DISPLAY

■ PEL1094 (V701: DISPLAY BOARD ASSY)

■ FL INDICATOR TUBE

- Pin Assignment

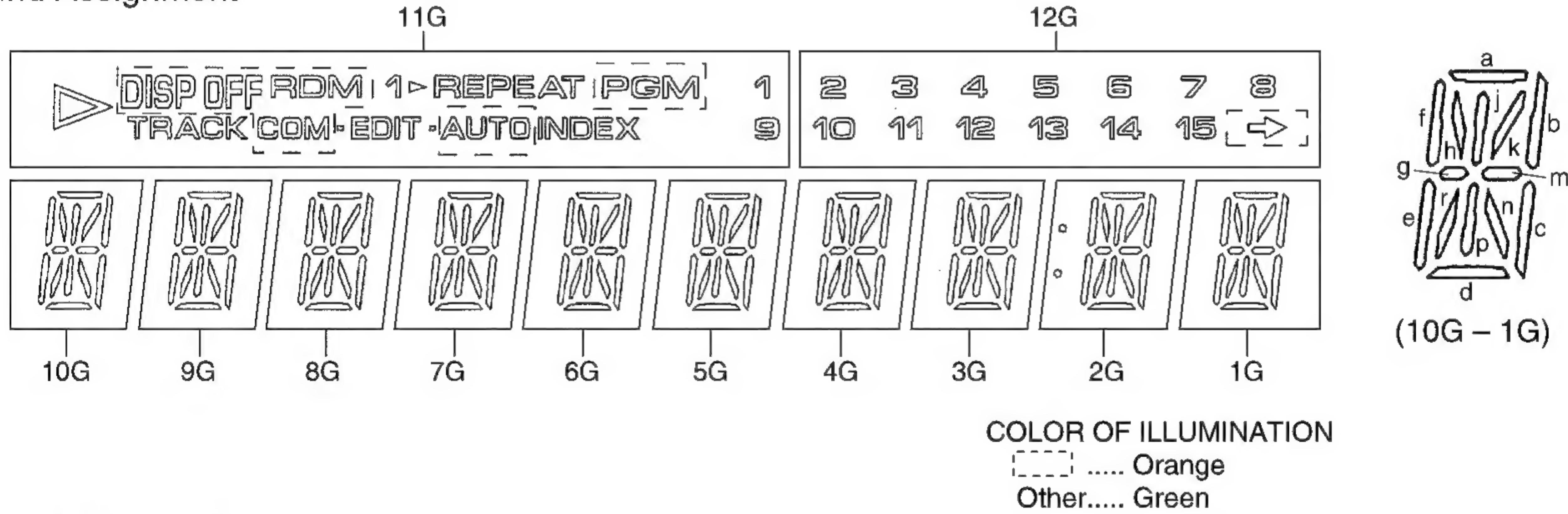


NOTE
 1) F1, F2 -- Filament
 2) NP ----- No pin
 3) NX ----- No extend pin
 4) DL ----- Datum Line
 5) 1G~12G -- Grid

- Pin Connection

PIN NO.	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4						
CONNECTION	F	F	N	1	1	1					1	2	3	4	5	6	7	8	9	0	1	2	3	4						
	1	1	P	G	G	G	G	G	G	G	G	X	X	1	2	3	4	5	6	7	8	9	0	1	2	3	4	P	2	2

- Grid Assignment

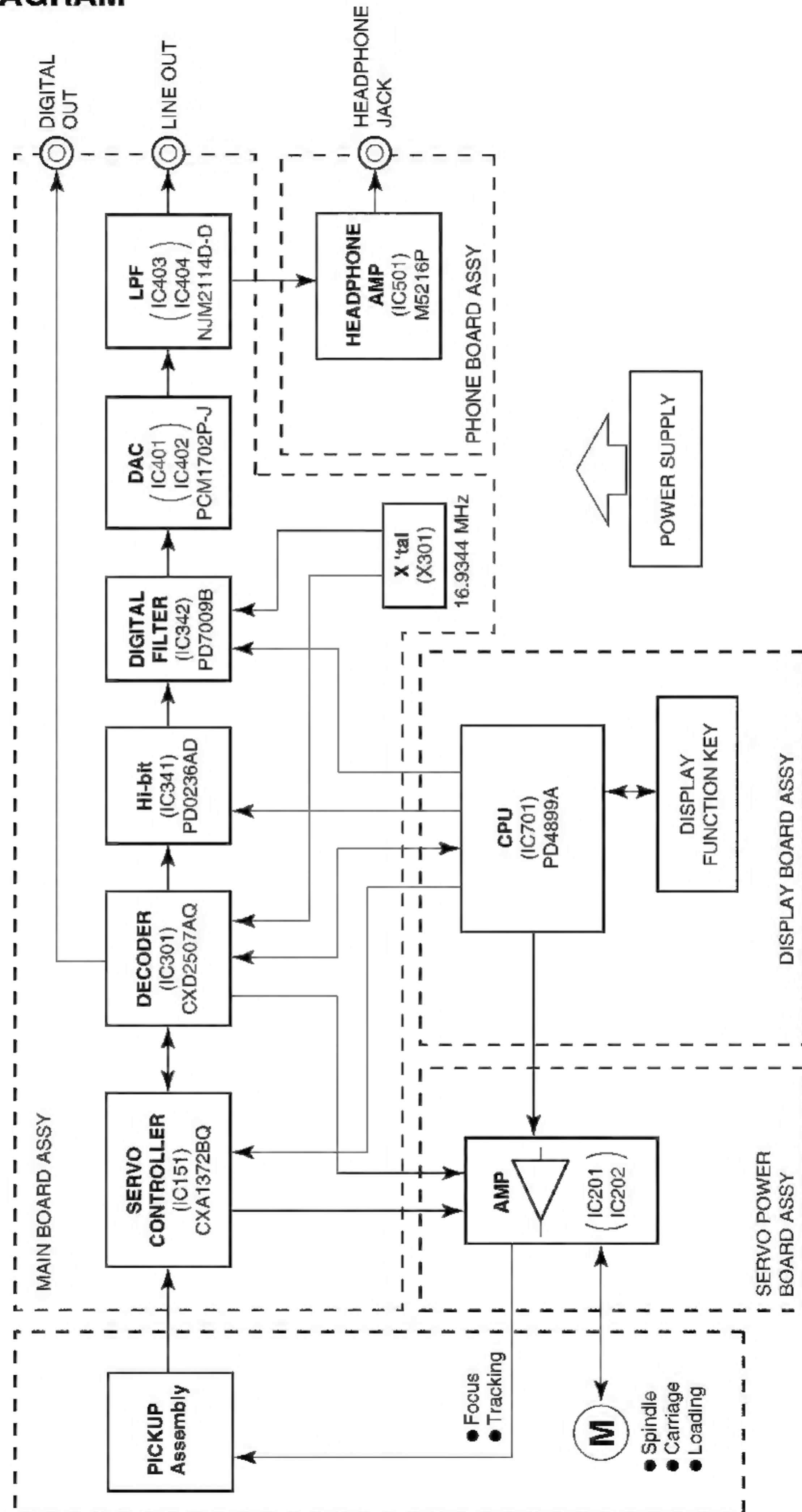


- Anode Connection

	12G	11G	10G-3G	2G	1G
P1	2	1	r	r	r
P2	3	9	h	h	h
P3	4	►	a	a	a
P4	5	DISP OFF	b	b	b
P5	6	RCM	c	c	c
P6	7	REPEAT	d	d	d
P7	8	1 ►	e	e	e

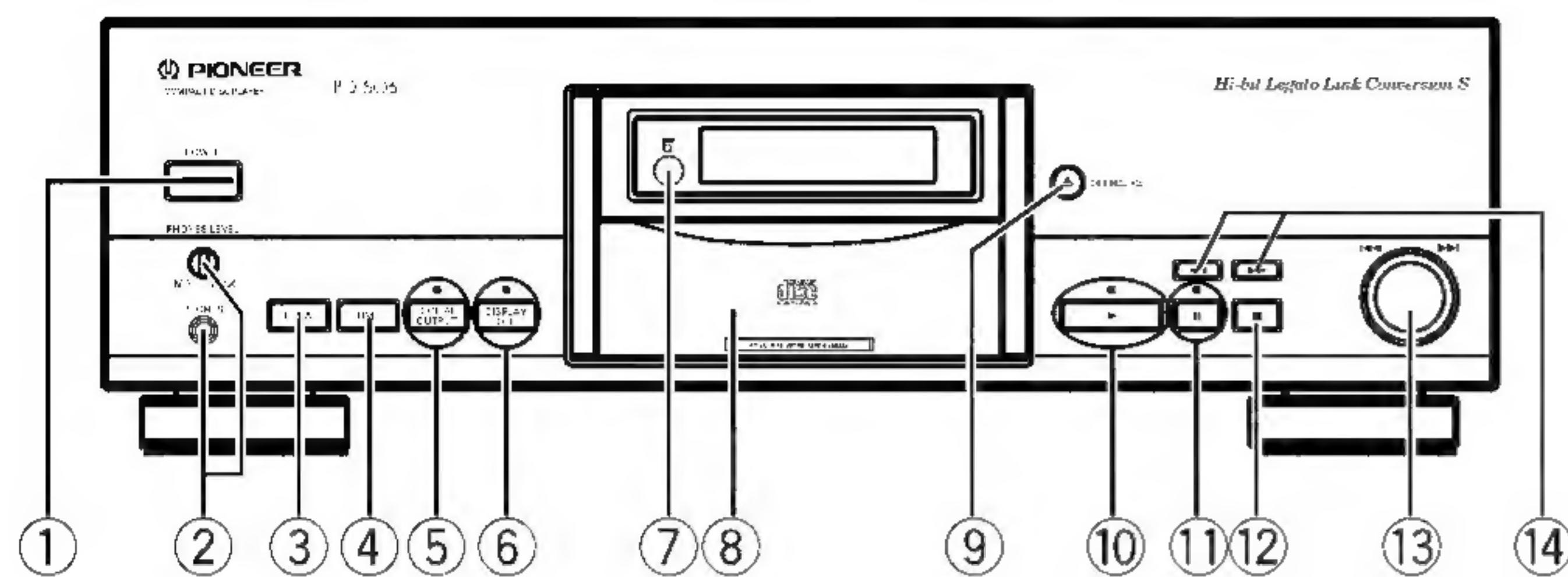
	12G	11G	10G-3G	2G	1G
P8	10	—	f	f	f
P9	11	PGM	g	g	g
P10	12	TRACK	m	m	m
P11	13	COM	j, p	j, p	j, p
P12	14	- EDIT -	—	col	—
P13	15	AUTO	k	k	k
P14	⇒	INDEX	n	n	n

7.2 BLOCK DIAGRAM



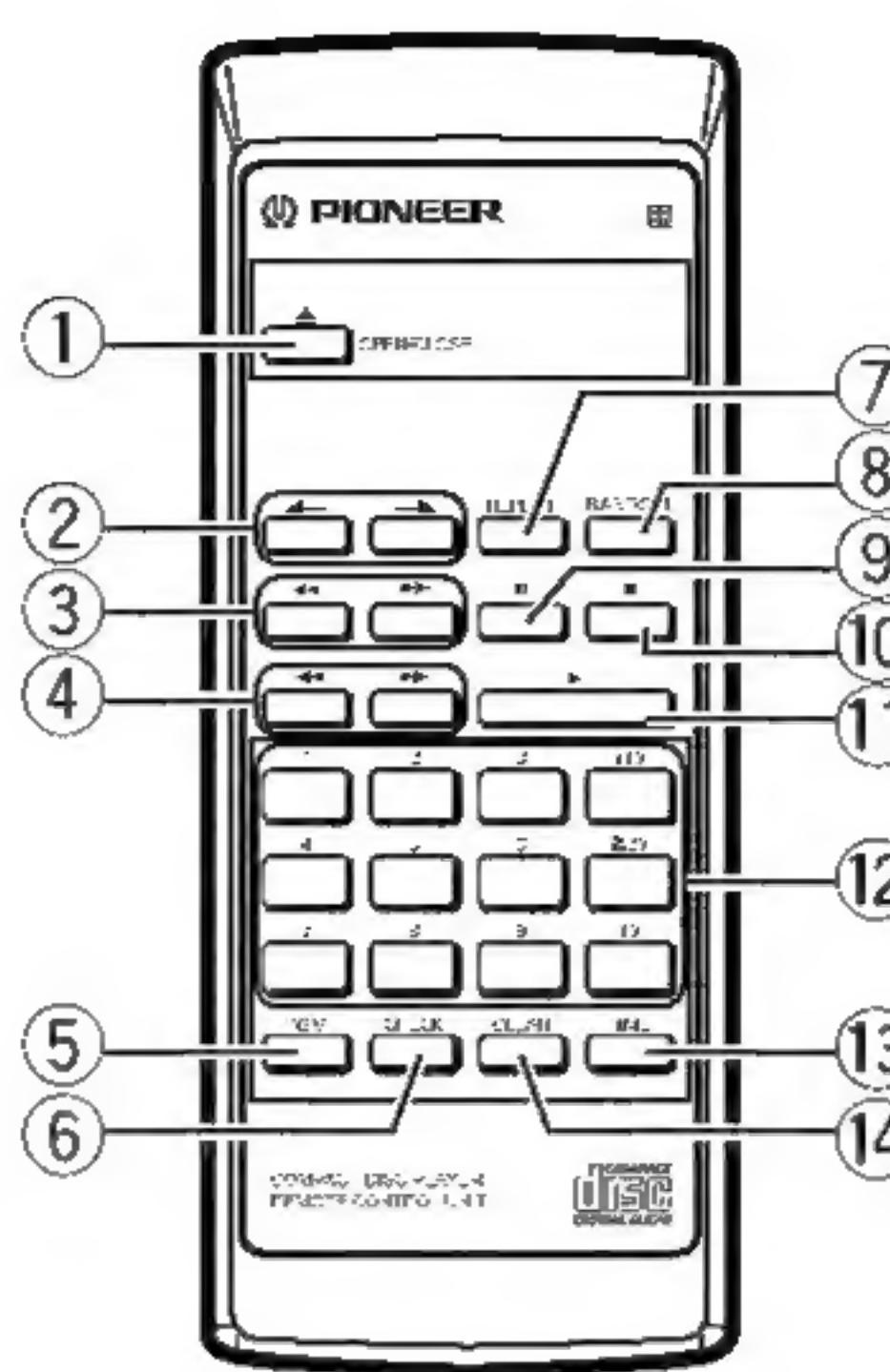
8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES



FRONT PANEL

- ① POWER switch
- ② PHONES jack and PHONES LEVEL knob
- ③ REPEAT button
- ④ TIME button
- ⑤ DIGITAL OUTPUT button and indicator
- ⑥ DISPLAY OFF button and indicator
- ⑦ Remote sensor
Receives the signal from the remote control unit.
- ⑧ Disc tray
- ⑨ OPEN/CLOSE button (▲)
- ⑩ Play button (▶) and indicator
- ⑪ Pause button (II) and indicator
- ⑫ Stop button (■)
- ⑬ Track search knob (◀◀/▶▶)
- ⑭ Manual search buttons (◀◀/▶▶)



REMOTE CONTROL UNIT

Remote control buttons with the same names or marks as buttons on the front panel of the player control the same operations as the corresponding front panel buttons.

- ① OPEN/CLOSE button
- ② Index search buttons (←/→)
- ③ Manual search buttons (◀◀/▶▶)
- ④ Track search buttons (◀◀/▶▶)
- ⑤ PGM (program) button
- ⑥ CHECK button
- ⑦ REPEAT button
- ⑧ RANDOM button
- ⑨ Pause button (II)
- ⑩ Stop button (■)
- ⑪ Play button (▶)
- ⑫ Track number/Digit buttons (1 - 10, +10, ≥ 20)
- ⑬ TIME button
- ⑭ CLEAR button

■ SPECIFICATIONS

1. General

Type	Compact disc digital audio system
Power requirements	AC 220 - 230 V, 50/60 Hz
Power consumption	19 W
Operating temperature	+5°C - +35°C
Weight	10 kg
External dimensions	420 (W) x 374.3 (D) x 128 (H) mm

2. Audio section

Frequency response	2 Hz - 20 kHz
S/N ratio	113 dB or more (EIAJ)
Dynamic range	100 dB or more (EIAJ)
Harmonic distortion	0.0018% or less (EIAJ)
Output voltage	2.0 V
Wow and flutter	Limit of measurement (±0.001% W.PEAK) or less (EIAJ)
Channels	2-channel (stereo)

3. Output terminal

Audio line output jacks	
Optical digital output jack	
Coaxial digital output jack	
Phones output jack	
CD-DECK SYNCHRO jack	

4. Input terminal

AC inlet jack

5. Accessories

● Remote control unit	1
● AAA/R03 dry cell batteries	2
● Output cable	1
● Power cord	1
● Operating instructions	1

NOTE:

Specifications and design subject to possible modification without notice, due to improvements.